

Appendix 5-1

Media Coverage of the CSO LTCP

Sewer: Alternatives exist for fixing overflows

► Continued from C1

Goodwin said Terre Haute could spend more than four times the highest estimate and still not eliminate every overflow.

The alternatives in Terre Haute's plan include a series of dams in existing sewers, new storage tanks or expansion of the wastewater treatment plant.

Options include new drainage pipes and closing outflows in Fairbanks Park, an area identified by the citizen advisory board as a priority, and around which all 10

Terre Haute overflow drains are located.

Anderson said the goal to clean up Indiana waterways was worth the effort and expense.

"It's the right thing to do," she said.

The committee will meet again April 16 to look at what rate increases might be necessary to complete each of the alternatives and options. The work to improve the system will take up to 10 years, and will be paid for over as many as 20 years, Goodwin said.

Sewer fix could cost as much as \$50 million

Final plan must be submitted by April 30

By PETER CIANCONE
TRIBUNE-STAR

The cost for Terre Haute to curb combined sewer overflows finally has an estimated price tag.

City Engineer Pat Goodwin said figures presented Monday to the citizen advisory board assembled to study the issue ranged from about \$31 million to a just over \$50 million.

"These are preliminary figures," Goodwin said, adding that they could vary up to 15 percent higher or lower.

"We could be in worse shape than what we are," said Mayor Judy Anderson, noting that many other Midwestern cities faces greater problems than Terre Haute.

The figures were prepared for Terre Haute by the two engineering consulting firms helping with the project: Hannum, Wagle and Cline, and Greeley and Hansen.

Goodwin said clearer figures would be available after city officials made a decision about which of the three main alternatives and which options would be included in the plan. The plan must be submitted to the Indiana Department of Environmental Management for approval by April 30.

The plan to reduce combined sewer overflows is aimed at agreeing with IDEM on a happy medium, called "the knee of the curve," where cities facing these problems get the best results for the money they have. To spend more would achieve no great improvement in water quality.

► Turn to SEWER, C3

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TRIBUNE STAR
3/4/02
RW
ML

Page editor: Bob Orlandini

City has options to fix sewers

The Associated Press ran a collection of material this week about combined sewer overflows, a story that has been near and dear to my heart for almost a year.

Terre Haute is among more than 100 Hoosier cities that face substantial public works projects designed to prevent human waste from washing into waterways whenever it rains more than a shower. Each city poses unique issues. Construction of sewers themselves, rainfall amounts, location and

number of overflow points, soil types, topography - this is endlessly complex.

Terre Haute seems to be doing pretty well compared to some cities. We are on schedule to submit our plan, though admittedly we won't know right away if the Indiana Department of Environmental Management will sign off on it. Indianapolis offered a \$1 billion



THE
SPECTATOR

PETER
CIANCONE

fix that was rejected, and Cincinnati's plan is being challenged in court by the Sierra Club as inadequate.

The most enlightening element of the AP material was the sheer magnitude of the problem in the Midwest. About 1,000 American cities have combined sewers. More than a third of them are within 400 miles of here. Ohio, Illinois, Indiana and Michigan lead the nation in this kind of pollution. Cross us off the mayor of New Orleans' Christmas card list.

Americans in general and

Hauteans specifically will be asked to do their share to solve a problem created by an inexpensive work-around from the past. For us, the bill is expected to run between \$30 and \$60 million.

Terre Haute has alternatives and options for what to do to fix this - 10 such combined sewer overflows exist in Terre Haute, all of them in the immediate vicinity of Fairbanks Park - so we have an idea how to attack the problem. Cost estimates now occupy the attention of our city engineer and the consultants hired to help. Their findings will be presented to the city March 18.

Fixing state's sewers won't come cheap

By RICK CALLAHAN
ASSOCIATED PRESS

Across Indiana and across the country, cities and towns are waging a complex and expensive siege against sewage.

EDITOR'S NOTE

During rainstorms, their outdated sewer systems are diverting millions of gallons of rain and untreated sewage into rivers and streams.

■ This is the final in a series of stories on Indiana's sewage runoff problems and efforts under way to remedy the growing threat to safe water supplies.

Cleaning up those sewers won't come cheap — it will cost at least \$4.5 billion for Indiana's cities and about \$44.7 billion nationwide.

► Turn to SEWERS, A4



AP/Michael Conroy

Warning: A sign along Fall Creek in Indianapolis alerts residents to the presence of a combined sewer overflow point that can pour raw sewage into the creek during wet weather.

Sewers: Control plan ordered by EPA

► Continued from A1

In Indiana, 105 communities have sewer systems that combine sewage from the city's toilets and runoff from storms and are permitted to dump their untreated sewage into waterways. In sewer parlance, they are CSOs — combined sewer overflows.

"For virtually every CSO community in the nation, this will be their largest public works program ever. It's huge," said Mark Poland, executive secretary of the CSO Partnership, a national coalition of representatives of such communities based in Richmond, Va.

In contrast to the 1970s, when state and federal governments financed up to 80 percent of sewage plant upgrades, there is little government money these days for sewer improvements. Property owners often pay much of the cost through sewer rate or property tax increases.

Such increases are likely for each of the Indiana communities as they implement a control plan required by the EPA.

But finding the money to pay for their plans — let alone the actual construction projects to stem overflows — will not be easy, especially for smaller cities, said Tim Method, deputy commissioner of the Indiana Department of Environmental Management.

Some small cities with sewer problems already have unusually

high sewer rates, as a result of their small tax base, he said.

"For the smaller communities, where there are obviously fewer people who can bear the costs, you find sewer rates of \$50, \$60, \$70 a month," Method says. "So they are already paying a lot in some situations, and that's just to treat wastewater."

Of the state's 105 communities with combined sanitary and storm sewers, 15 had submitted their long-term plans as of February. Most communities have an April deadline to complete their plans.

There are three basic approaches to dealing with combined sewer overflows:

- installing separate storm and sanitary sewers;

- expanding a sewage treatment plant's capacity;

- catching and holding sewage-tainted storm water until it can be treated.

Cities with combined sewer overflows or other sewer-related problems have two options for financial help from the state — grants and low-interest loans, said Richard Emery of the State Budget Agency.

The State Revolving Fund uses federal dollars to provide low-interest loans to meet wastewater and drinking-water needs. During the past five years, about \$1 billion in such loans has been made to Indiana's cities and towns, Method

said.

In addition, the State Supplemental Drinking Water Wastewater Assistance Fund provides grants to help cities with combined sewer overflows. Last year, \$30 million was appropriated for such uses. Ten requests are pending.

Communities can apply for grants of up to \$50,000 to help pay for their control plans. While not a lot of money, it can help smaller communities, Emery said.

"When you look at a city like Indianapolis, of course that wouldn't make much difference, but if you have a small community that has one or two CSOs, \$50,000 would go a long way," Emery said.

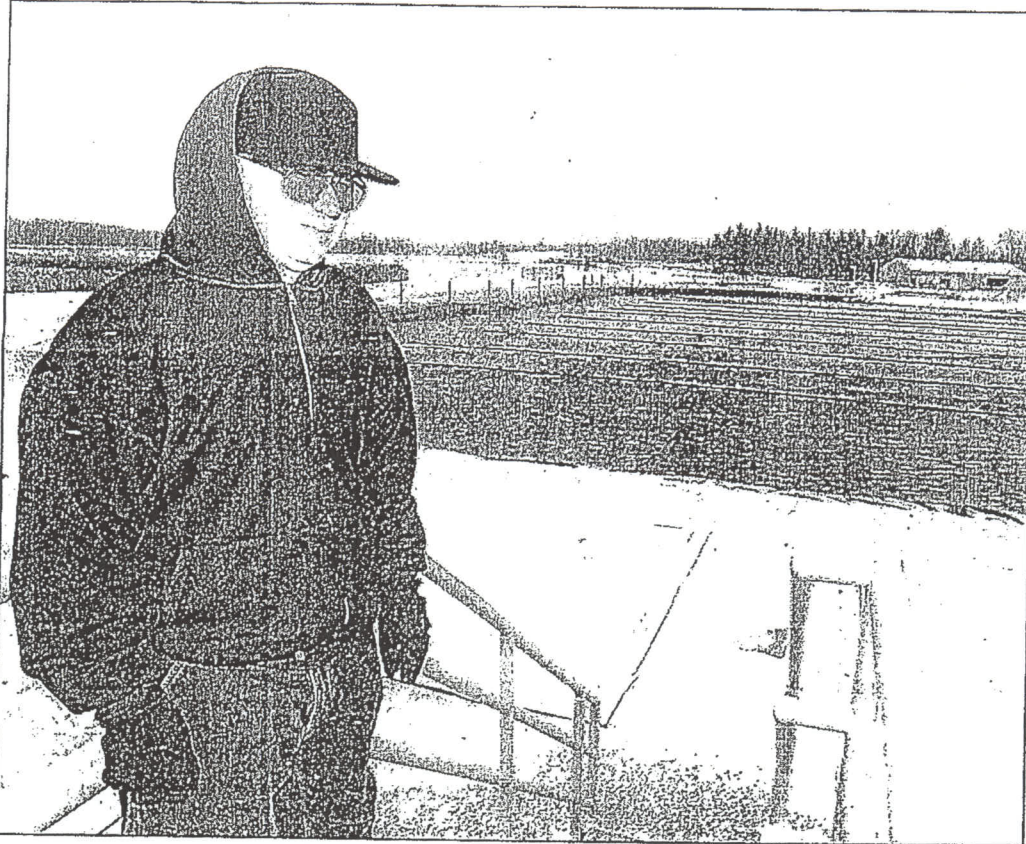
In Indianapolis, city officials have endorsed a \$1 billion improvement plan that will increase the typical monthly residential sewer bill to about \$28 from \$11 within 20 years.

The city plans to capture and treat about 85 percent of the CSO sewage and stormwater by expanding its sewage-treatment plants and installing huge tanks to hold storm runoff until the rains subside and the excess can be properly treated.

Separating storm and sanitary sewers would be too expensive for a large city such as Indianapolis, which has 850 miles of combined sewers among its total 3,000 miles of sewer lines.

SEWER ISSUES PLAGUE SMALL TOWNS, TOO

Big problem; no money



Tribune-Star/Jim Avelis

Treating wastewater in Brazil: Jerry Barnett, supervisor of the Brazil Wastewater Treatment Plant, stands near the aeration pit, where the treatment of wastewater begins. More than 2 million gallons of wastewater is treated daily at the facility.

Brazil, Clinton face state administrative action for overflow

By PETER CIANCONE
TRIBUNE-STAR

Combined sewer overflows plague big cities in Indiana, but the problems don't stop there. With 105 such communities in

the state, small towns such as

Brazil, Clinton and Sullivan also have to answer to the Indiana Department of Environmental Management and the federal Environmental Protection Agency — with no financial help promised as a means to solve any problems.

Sullivan is working to complete a long-term control plan by an April 30 deadline, said IDEM spokeswoman Courtney Kasinger. Brazil and Clinton, though, have more complex issues. Both towns face administrative actions based on previous problems, said Kasinger.

EDITOR'S NOTE

■ This is the third in a series of stories on Indiana's sewage runoff problems and efforts under way to remedy the growing threat to safe water supplies.

► Turn to OVERFLOW, A4



Tribune-Star/Jim Avelis

In the lab: Shirley Jolly, lab supervisor at the Brazil Wastewater Treatment Plant, checks sludge to make sure the wastewater treatment system is working properly.

Will to solve sewer problems lacking at many political levels

By MIKE SMITH
ASSOCIATED PRESS • Indianapolis

State legislators, like their counterparts in Congress, love to bring taxpayer money back home.

Passing out checks for new fire trucks or police cars or street lights or bridges — politically, that's what photo ops and ribbon-cutting ceremonies are all about.

"It's easier to give money for those kinds of community needs rather than long-term community needs," said Sen. Vi Simpson, D-Bloomington.

And that includes aging, overloaded sewer systems, a long-term community need if there ever was one.

So many municipal sewer systems are so bad that the Indiana Department of Environmental Management has fined, or threatened to fine, some cities and towns for failing to fix their water pollution problems.

Problems arise when raw sewage, mixed with storm water or snow-melt

runoff, is discharged directly into rivers and streams from overwhelmed sewer systems. Other problems are created by

sewer pipes and treatment plants that are too old for a quick fix here, a stopgap measure there.

The problems have been years in the making, and they seem years from being solved.

Environmentalists complain that state and local officials lack the political will to tackle the problems because they are so vast and so expensive to fix. The Environmental Protection Agency estimates it will cost Indiana \$4.5 billion to solve its sewer problems.

Agency estimates it will cost Indiana \$4.5 billion to solve its sewer problems.

► Turn to SOLVE, A4

DISCHARGE POINTS

Indiana permits 105 cities and towns to discharge sewage-tainted storm water into rivers and other waterways. Here's a list of some cities and the number of discharge points.

City	Discharge Points
Indianapolis	133
South Bend	44
Fort Wayne	42
Elkhart	39
Kokomo	30
Evansville	23
Hammond	20
Muncie	20
Anderson	19
Wabash Valley	
Terre Haute	10
Clinton	6
Sullivan	5
Brazil	1

Source: Indiana Department of Environmental Management

Solve: Communities grateful for money

► Continued from A1

"Local communities are wanting to drag their feet and wanting the state to drag its feet, and the state is dragging its feet by not making local communities do what it takes in the long term to address combined sewer overflows," said Rae Schnapp, water policy coordinator for the Hoosier Environmental Council, Indiana's largest environmental advocacy group.

Almost all cities are operating on expired permits that were written to old standards, Schnapp said. And some cities are still connecting new housing and business developments to their sewer systems, even though they already overflow or malfunction regularly.

The big price tag is a big part of the political foot-dragging. The state has set aside money for sewer and water system projects for several years. Lawmakers appropriated \$45 million during the 1999 budget-writing session and set aside \$50 million for the current two-year budget cycle even though money was tight.

Communities that get some of the money are grateful. The town of Cumberland near Indianapolis received a \$1.8 million state grant to help upgrade its system. The

town still doubled sewer rates to pay for an overhaul, but without the grant, it would have been forced to raise rates even higher. State appropriations haven't come close to what it will take.

"This is the hidden monster not only for state government but for local government. We continue to ignore it, but it's serious business and it's big money," Simpson said.

State Sen. Beverly Gard, R-Greenfield, said state and federal governments have a responsibility to help communities.

The Legislature is becoming more aware of the problem's scope, she said, "but quite frankly I don't think it's an issue unless you deal real close with local government issues or environmental issues."

Gard thinks lawmakers should spend more of the state's gambling revenues in the Build Indiana Fund on such projects.

Sewer problems in Indiana's big cities make news, but smaller communities are in dire need of funding, too, said Tonya Galbraith, a lobbyist for the Indiana Association of Cities and Towns.

"The Avillas and Rising Suns have very small populations but are having to comply with the same things," Galbraith said.

While agreeing the state should

do more to help communities fix their problems, Senate Finance Chairman Larry Bors, R-Greenwood, contends it is not the state's job to rescue cities and towns that lack the political will to raise rates. "Ultimately, the cost has got to be borne by the local community," Bors said. "I can't see where the state is going to run in every time and take care of it."

Politicians answer to people, but not all of the people are affected by the problem. "The people on the south side, high on top of a hill, don't care less," Bennett said. "If it's not in my backyard, they don't scream about it."

Few in the Statehouse are speaking loud about it, either.

The Legislature enacted a law last session, Senate Bill 451, requiring communities to develop specific plans for solving their sewer problems. It also gives them the ability to sell bonds or raise other money to get the job done.

It also buys them time. "Senate Bill 451 was a godsend in that it gave us more guidelines and a little more room to breathe," Bennett said. "It doesn't say we can get away with anything, but it gives us a little more time to prepare."

Overflow: Fines one possible solution

quality, it first tries to help the community or business improve the situation. If that help doesn't provide the desired results, the issue is turned over to IDEM's enforcement division for an administrative action. A project manager reviews the case and develops a mutual agreement, she said, that can include a fine and/or deadlines for cleanup.

Fines can run as high as \$25,000 a day for non-compliance, Kasinger said. "It all depends on each individual case."

In Clinton, officials are working with engineering consultants Hannun, Wagle and Cline to develop a long-term control plan, but the discovery of a previously unknown combined sewer overflow and lack of proper public notification of the known overflows caused administrative action there, as well, said Mayor Ron Shepard.

Those problems, and the late submission of a report required by the first tier of combined sewer overflow regulations, led to the administrative action in Clinton, said Mike Cline, of Hannun Wagle and Cline, the engineering firm working with the city to rectify its problems. The

first series of regulations from about six years ago included nine minimum controls.

He said Clinton is looking at the same April 30 deadline for its long-term control plan.

Cline said Clinton officials are considering alternatives to alleviate the problems. Those possible remedies include holding the water in the system to contain the first flush, building separate storage facilities, finding and fixing bottlenecks or treating the water faster at the plant.

Shepard said the city still has no estimate on the cost, but one thing seems clear. Whatever answers communities find to solve these problems, the cost will be borne by the local residents. No state or federal help, apart from loans, will be available to defray what is estimated to cost Hoosiers \$4.5 billion over the next 10 years.

"Obviously, we want to protect Indiana's waterways," Kasinger said. "But we realize that it will take both time and money."

STARTING A NEW BUSINESS?

IN THE SAME BOAT

Indiana's neighboring states also face problems with sewage discharges into waterways through CSOs — sewer systems that combine raw sewage and storm water.

State	Communities	Discharge pts.
Indiana	105	886
Illinois	107	761
Ohio	93	1,489
Michigan	52	911
Kentucky	17	299
Minnesota	3	52
Wisconsin	2	123

Source: Indiana Department of Environmental Management and the U.S. Environmental Protection Agency

State makes little progress fixing vast sewage problem

Needed repairs will cost more than \$4 billion

By Rick Callahan
Associated Press

In 105 Indiana cities and towns, waste such as excrement, urine, condoms and toilet paper pours into waterways during wet weather.

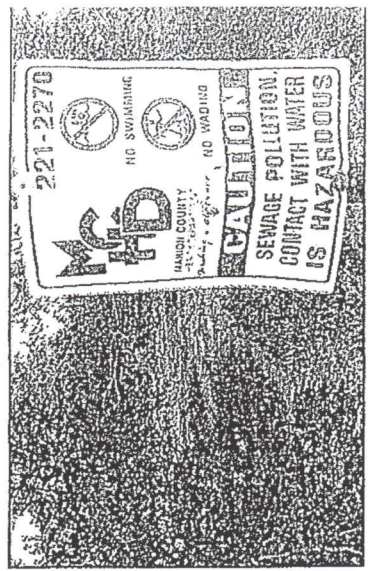
The sewage problem is so vast and so costly to fix that many communities have made little progress on repairs.

The rivers and streams that run through Indiana conceal a filthy legacy of the 20th century — gaping drainage pipes that spew raw sewage when heavy rains fall and winter snows melt.

EDITOR'S NOTE

■ This is the second in a series of stories on Indiana's sewage runoff problems and efforts under way to remedy the growing threat to safe water supplies.

► Turn to SEWAGE, A4



Posted: The Marion County Health Department has posted signs along Fall Creek in Indianapolis, warning that contact with the water is hazardous.

Local & Bistate

The election puzzle in Vigo County has taken shape as the list of candidates is now complete for the May 7 primary election. **C1**

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Money Problems?

The Law offers you solutions

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CHAPTER 7 BANKRUPTCY

For a fresh financial start
• Your Financial Problems Carefully Considered
• Your Property Rights Fully Explained
• Your Legal Questions Clearly Answered
• No Charge For Consultation
• Flexible Payment Plan
• Free Information Brochure Available

CHAPTER 13 BANKRUPTCY

A dignified way of paying your debts...business and personal
LET'S YOU:
• Lower Your Payments
• Keep All Your Property
• Organize Your Own Repayment Plan
• Stop Creditors Harassment
• Wage Garnishments
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Vol. 19, No. 287 • Today's A1 page editor: Bob Orlandini

Sewage: Survey says national cost \$44.7 billion

► Continued from A1

Little or no progress is being made despite the threat to human health and wildlife habitat, and a cleanup mandate by the federal government, The Associated Press found in a three-month review.

Repairs and construction of new systems are expected to cost Indiana about \$4.5 billion.

The improvements are needed to stop an estimated 20 billion gallons of sewage mixed with rain water that flow annually into the state's rivers and streams — a volume that would fill 228 RCA Domes, from the playing field to the top.

Indiana's sewage problems are the byproduct of antiquated sewer systems and government policy that critics say amounts to tolerance of a public health problem many would equate with developing nations.

Yet for 105 cities and towns, and many of the 2.5 million people who call those communities home, the problem is not the plight of an impoverished culture lacking streets and sewers; it is in their parks and back yards.

"People just assume that when they flush the toilet everything is going to work all right, that it's going to go to the proper place to be treated. But the truth is, that's not the case," said Tim Method, deputy commissioner of the Indiana Department of Environmental Management.

The state's sewer problems arise from an engineering flaw, a problem that was not envisioned when Indiana's cities and towns began laying brick-lined storm sewers more than a century ago.

At the time, indoor plumbing did not exist, and the chief concern was preventing streets from flooding during downpours. But as toilets, sinks and bathtubs were added to homes during the 20th century, cities responded by funneling the waste into their storm sewers.

Rapid suburban growth, particularly after World War II, continued this trend until the federal government effectively banned the practice in the 1970s by requiring cities to lay separate storm and sewer lines.

By then, older cities had a big problem.

Although most sewer lines carrying both storm water and sewage work fine during dry weather, rain and snowfall can quickly overwhelm municipal sewer treatment plants.

To prevent raw sewage from backing up in homes, businesses and streets, communities send untreated sewage and storm water into area waterways through discharge pipes.

These discharges kill fish, close beaches and taint waterways green from algae blooms fueled by nutrients found in human waste. And they leave behind a sickening

smell that can linger for weeks.

For people who swim or wade into these waterways, particularly children attracted to rain-swollen creeks, they hold the threat of stomach and intestinal illness or viral disease like hepatitis.

It's a problem for cities large and small.

In Indiana, 105 communities — ranging from the state's largest city, Indianapolis, to the small Cass County town of Royal Center, with a population 830 — periodically foul rivers, lakes and streams in their midst.

Boonville, in southeastern Indiana, has such a big problem that it has barred nearly all new sewer hook-ups to businesses for nearly 30 years. But many cities' zoning boards continue to allow new subdivisions to connect to already overburdened sewer systems, worsening overflows.

In Indianapolis alone, between 6 billion and 7 billion gallons of raw human waste mixed with storm water are diverted each year from treatment plants into the White River, Fall Creek and other waterways.

For residents living near those waters, the stench can be repulsive.

"It can smell so bad that it's like something is dead," said Rochelle Edmondson, 41, who lives a stone's throw from Fall Creek, which annually swallows 1.2 billion to 1.8 billion gallons of sewage. "It can be so bad that it makes you feel like you're going to throw up."

Mindful of the enormous cost of addressing their sewer woes, public officials once ignored the overall problem while spending minimal amounts to handle the worst of their sewer overflows.

But now the bill for those outdated sewer designs is coming due, with a federal mandate looming for cities and towns to draft long-term plans for cleaning up the mess.

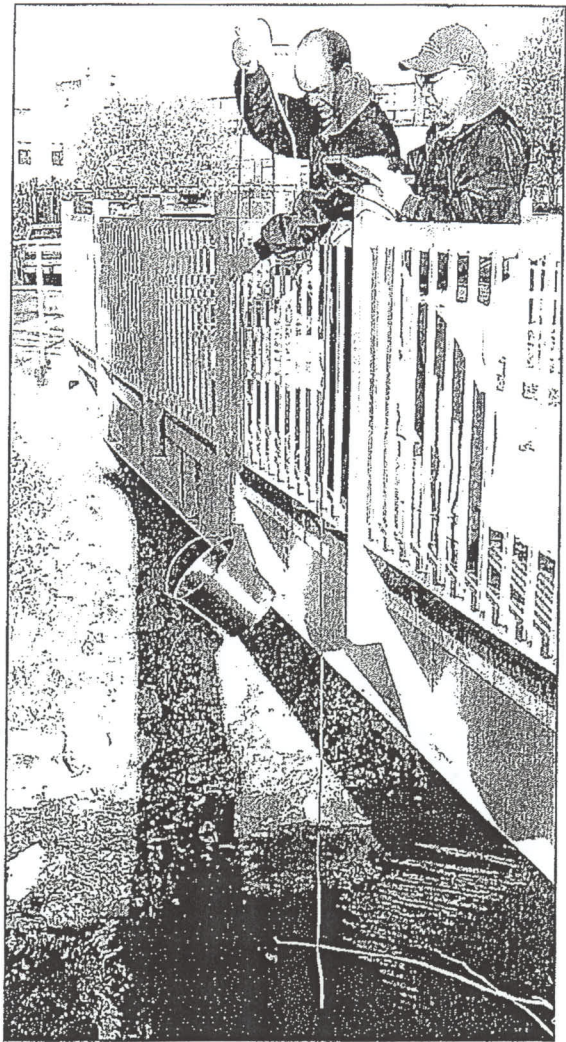
The plans require cities across the country to enact minimum controls to curtail their overflows. Although there are no specific deadlines for these upgrades, they come with a staggering price tag.

Nationally, the fix will cost about \$44.7 billion, according to a 1996 survey by the Environmental Protection Agency. Indiana's piece of the bill was estimated then at \$4.5 billion.

As state and federal environmental officials press municipalities into action, residents of dozens of Indiana cities and towns already face sewer rate increases to finance sewer plant improvements or expansions.

Fort Wayne, for example, last year imposed a 38 percent sewer rate increase to raise about \$70 million over five years to pay for part of its \$250 million effort to clean up its sewers.

And Indianapolis announced a \$1 billion plan to capture 85 per-



AP/Darron Cummings

Testing: Marion County Health Department employees Mike Holeman and Joe Ketterman take samples from Fall Creek in Indianapolis. More than 6 billion gallons of raw human waste mixed with storm water are diverted each year into waterways in the Indianapolis area.

cent of its sewage and storm water overflows and hold the discharges for treatment until rains subside. The project will raise the typical residential sewer bill from about \$11 to \$28 a month within 20 years.

But many communities with big sewer problems have small tax bases from which to finance sewer upgrades, even as expanding suburbs stress their overtaxed treatment plants even further.

As elected officials grapple with those issues, tens of thousands of Indiana residents continue living in areas where human waste pours out of pipes near their homes. In fact, Indiana is home to more than 10 percent of the nation's cities that discharge raw sewage into waterways, said Jim Filippini, a deputy branch chief of the EPA's regional office in Chicago.

Together, older cities in Indiana, Michigan, Illinois and Ohio

account for about 42 percent of the nation's communities making such discharges and all face astronomical costs to correct them.

"It's not the fault of these states and it's not the fault of the cities," Filippini said. "This was just the way things were done for a long time, before we started to worry about pollution."

Regardless of who is to blame, public health and recreation is at stake, said Rae Schnapp, water policy specialist for the Hoosier Environmental Council, the state's largest environmental group.

Dirty rivers and streams mean people cannot enjoy recreational pursuits — swimming, fishing and wading — that their grandparents took for granted.

"Many kids can't even play in the waterways near their home and it's a shame because that should be one of the joys of childhood," Schnapp said.



Road loss

MICHIGAN STATE RALLIES TO TAKE WIN
Sports/B1



Sweetness

CHOCOLATE HAS DELICIOUS HISTOR
Food/D1

Tribune Star

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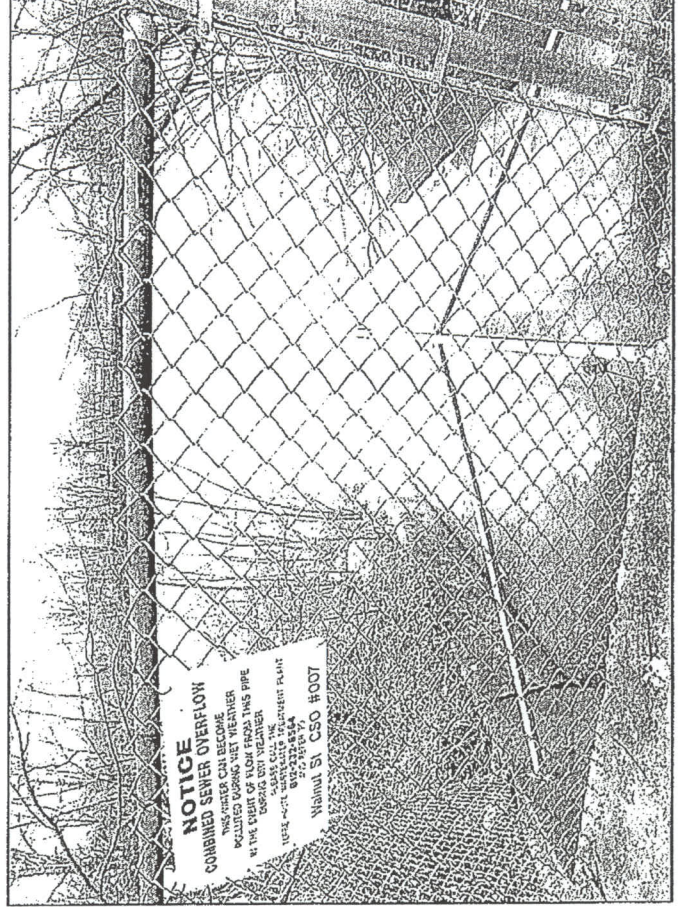
MONDAY, FEBRUARY 25, 2002

SERVING TERRE-HAUTE AND THE WABASH VALLEY

50¢ NEWSSTAND

CLEANUP TAKES TIME, MONEY

Overflow obstacles



Visitors beware: A sign warns of a combined sewer overflow outlet in Fairbanks Park. A Terre Haute official says the city's plan to control sewer overflow is an obstacle to the city's plan to build a new sewer system.

Tribune-Star/Jim Avelis

By PETER CIANCONE
TRIBUNE-STAR

City Engineer Pat Goodwin said Terre Haute's plan to control combined sewer overflows was on schedule to be presented to state officials in April.

He met with the two consulting firms Friday - Hannum, Wagle and Cline of Terre Haute and Greeley and Hansen of Indianapolis - hired by the city to help conduct the study. They discussed data collected about Wabash River water quality, one of the variables necessary to form a control plan that will satisfy state and federal clean water standards.

"Because of the complexity of the problem, we needed help," Goodwin

said. "Back in the 1950s and 1970s, I don't know how they did [this kind of study]. There are way too many variables for a human to deal with."

The work began last spring. The existing sewer system was thoroughly mapped, including both the storm sewers and the combined systems that are the focus of the problem.

Combined sewers include storm and sanitary drainage. During normal weather conditions, the sewage flows through the bottom of these pipes to the wastewater treatment plant. During heavier rainfalls, the combined content of the pipes is too great to flow to the treatment plant, so combined sewer contents flow directly into the river. Terre Haute has 10 such combined sewer overflows along

the Wabash River. Rainfall data also was collected, pointing to one of the many complex variables in the study. Rain does not fall evenly throughout the area covered by the system, so computer modeling is used to allow engineers to test their ideas.

"Once you collect all that data, you can run the model," Goodwin said. "Then you start to look at ... what we can do. Let's try something here and see how it affects the overflows."

Options include holding the water in the system until the overflow is limited, building separate storage tanks, finding and fixing bottlenecks, or treating the water faster at the plant, Goodwin said.

► Turn to SEWERS, A4

Something's rotten in the state of Indiana

By RICK CALLAHAN
ASSOCIATED PRESS

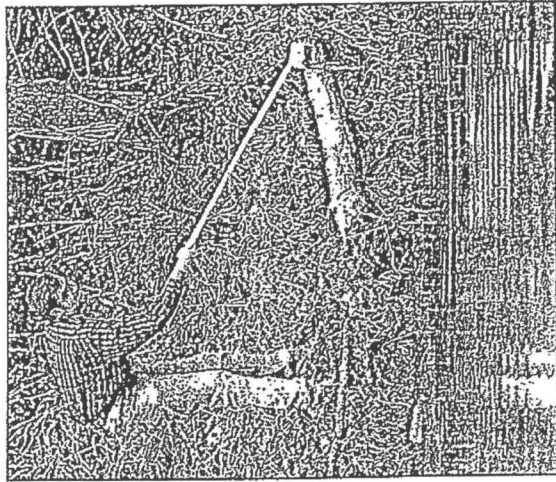
Until he gave up cigarettes, Dwayne Huber didn't pay much attention to the sewage smell that drifted into his Fort Wayne neighborhood from ponds near the Maumee River.

But once he quit smoking, his sharpened sense of smell captured the odor for what it really was - a stench like rotten eggs. Wafting its way from two retention ponds that capture sewage-tainted water headed for the Maumee River, the smell is strong enough to make him sick to his stomach.

"When I've gone biking along the river greenway I've actually had to turn around and go the other way because it smells so bad it makes you gag," Huber said.

Like thousands of Indiana residents, Huber, 37, and his neighbors on Fort Wayne's northeast side must occasionally live with a stench that assaults their nostrils. In all, 105 Indiana cities and towns are struggling with these smells and their origins - aging sewer systems that fall miserably during heavy rains, diverting sewage into rivers and streams.

► Turn to STATE, A4



AP/Michael Cooney

Stopping pollution: Tom Nelner, a former Indiana Department of Environmental Management official, takes a water sample from the White River in Indianapolis.

State: Residents can do little but complain

► Continued from A1
Residents in these cities often accept the smells as a fact of life. Others live with it, but complain often.

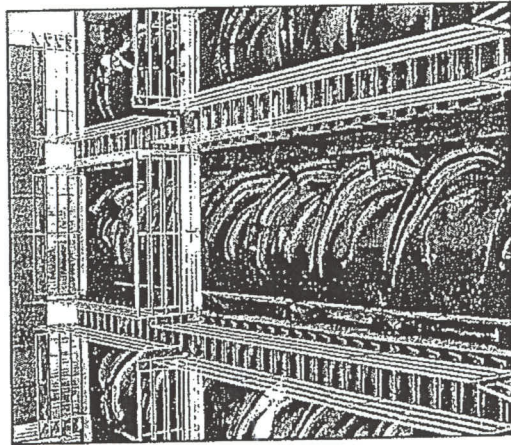
Rochelle Edmondson, who lives across the street from Fall Creek in Indianapolis, has put up with sewage smells since moving into the neighborhood three years ago.

When the creek swells into a brownish torrent during heavy rains, Edmondson, 41, said she can smell sewage through the drain in her kitchen sink.

If her sink doesn't stink, all she needs to do is throw open any window in the duplex she shares with her two young nieces and there it is — the smell of the city's toilets churning by in Fall Creek, which is hidden from view by the dense stand of trees and shrubs.

"It can make you feel like you're going to throw up," Edmondson said.

Leon Bates, 41, lives in a neighborhood surrounded on two sides by a bend in the creek. Only a few blocks away, hidden among trees, is a 12-foot dis-



At work: Shirley Eads, a senior operator and maintenance specialist at the Belmont Water Treatment Plant, walks above screw pumps that feed waste water into the facility in Indianapolis. AP/Michael Conroy

charge pipe. In the summer, a sudden downpour can make the sewers overflow just enough to dump a layer of sewage-laced water into the pools that line the shallow waterway. "It just lays there in the sun and bakes for days,"

Bates said. "It can get pretty ripe." The first influx of sewage into the creek often contains a higher concentration of human waste than water pouring through the combined sewer lines well into a storm, said Carlton Ray, an envi-

ronmental engineer for Indianapolis' Department of Public Works. The city is aware of the problem and has developed a \$1 billion plan to greatly reduce the sewage discharges.

For Linda Casey, principal of Harshman Middle School in a low-income neighborhood just east of downtown Indianapolis, sewage overflows of any concentration are a cause for concern.

Each morning, her school's 800 students leave their buses and trapse across a pedestrian bridge spanning Pogue's Run, normally a shallow ditch.

In times of heavy rains, however, it rises and turns brown as sewage and rain flow out of a discharge pipe only yards from the school. A sign installed by the city at the foot of the bridge warns of the raw sewage.

Casey said the creek not only poses a potential health risk, it casts a pall over her students' education.

"They should have a clean creek that they can go down to for science studies, or just to enjoy nature," she said.

Sewer: No Terre Haute cost estimate available yet

► Continued from A1

Mike Cline, a consultant helping Terre Haute develop the plan, said that work with the computer model led to three groups of recommended areas to address. How to capture the first flush of water in a rainfall of a determined size, how to route any overflow down-stream of Fairbanks Park, and what can be done to make the existing system more efficient. Cline said they also were

working with economic data. These upgrades are expensive, and state officials are willing to work with communities to allow a time frame from five to 20 years to get them done. Cline estimated that the city will have about 10 years to work the combined sewer system into compliance. No cost estimate is yet available to solve Terre Haute's problems, but figures between \$30 million and \$50 million would surprise nobody.

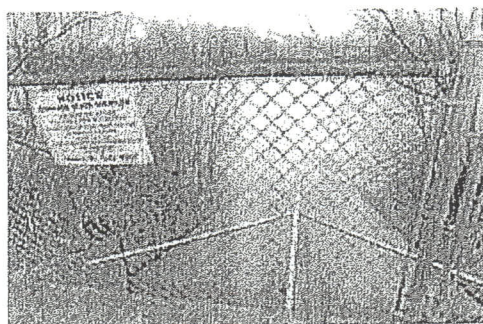
Dave Tennis, senior environmental manager of the urban weather section of the Indiana Department of Environmental Management, said the goal was to reduce the number of overflows to four or fewer per year, or reduce 85 percent of total overflow. For many communities, that could take years and millions of dollars. For Terre Haute, he added, they had yet to see the plan to know. A big part of any long-term

control plan, Tennis said, was to bring in as much public involvement as possible throughout the process. For that reason, Mayor Judy Anderson appointed an advisory board in Terre Haute that has met to review what Goodwin and the consultants have done since the beginning of their work. That board will meet again March 18 to look at the costs of the different alternatives, and to discuss priorities for the work.

Tribune Star

Online Archives for the Tribune Star.

February 25, 2002



Overflow obstacles

City joins others in Indiana working to fix problem

By Peter Ciancone/Tribune-Star

February 25, 2002

City Engineer Pat Goodwin said Terre Haute's plan to control combined sewer overflows was on schedule to be presented to state officials in April.

He met with the two consulting firms Friday -- Hannum, Wagle and Cline of Terre Haute and Greeley and Hansen of Indianapolis -- hired by the city to help conduct the study. They discussed data collected about Wabash River water quality, one of the variables necessary to form a control plan that will satisfy state and federal clean water standards.

"Because of the complexity of the problem, we needed help," Goodwin said. "Back in the 1960s and 1970s, I don't know how they did [this kind of study]. There are way too many variables for a human to deal with."

The work began last spring. The existing sewer system was thoroughly mapped, including both the storm sewers and the combined systems that are the focus of the problem.

Combined sewers include storm and sanitary drainage. During normal weather conditions, the sewage flows through the bottom of these pipes to the wastewater treatment plant. During heavier rainfalls, the combined content of the pipes is too great to flow to the treatment plant, so combined

sewer contents flow directly into the river. Terre Haute has 10 such combined sewer overflows along the Wabash River.

Rainfall data also was collected, pointing to one of the many complex variables in the study. Rain does not fall evenly throughout the area covered by the system, so computer modeling is used to allow engineers to test their ideas.

"Once you collect all that data, you can run the model," Goodwin said.

"Then you start to look at . . . what we can do. Let's try something here and see how it affects the overflows."

Options include holding the water in the system until the overflow is limited, building separate storage tanks, finding and fixing bottlenecks, or treating the water faster at the plant, Goodwin said.

Mike Cline, a consultant helping Terre Haute develop the plan, said that work with the computer model led to three groups of recommended areas to address: How to capture the first flush of water in a rainfall of a determined size, how to route any overflow downstream of Fairbanks Park, and what can be done to make the existing system more efficient.

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Online Archives for the Tribune Star.

February 25, 2002

Visitors beware: A sign warns of a combined sewer overflow outlet in Fairbanks Park. A Terre Haute official says the city's plan to control sewer overflow is on schedule to be presented to state officials in April. (Tribune-Star/Jim Avelis)

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Tribune Star

Online Archives for the Tribune Star.

January 30, 2002

Mayor shares hopes for 2002

Terre Haute House development tops highlights

By Peter Ciancone/Tribune-Star

January 30, 2002

Terre Haute Mayor Judy Anderson said she hoped the city would see the beginning of development of the long-dormant Terre Haute House as a highlight of 2002.

She made the announcement at her annual State of the City program in the City Hall courtroom on Tuesday.

Anderson reviewed 2001 briefly, stressing how well the city came through the international invasion that came with the execution of Timothy McVeigh.

Terre Haute will see the first construction on the National Road Heritage Trail in 2002 among other large public works projects, continued growth in the relationship with Indiana State University and the presentation on Monday of the results of the HyettPalma study about the future of downtown, she said.

Anderson also warned that state and federal budget constraints may have an impact on Terre Haute as less money is passed along from those levels of government.

She allowed each of her department heads to pass along their accomplishments in 2001 and goals for this year.

"The Terre Haute House is still on track," she said. "We believe it is very close to being announced," maybe as soon as February. Anderson said afterwards that it is a local group looking at a projected \$16 million improvement, but she could not provide more details.

"We want them to make the announcement," she said. "It's something we've been working on for two years." In that time, she said the city had three

other offers that fell through, but that she hoped this would be the one.

The National Road Heritage Trail section between the Twiggs Rest Area on U.S. 40 east of Terre Haute and 13th Street will begin construction within a month, Anderson said, and should be ready for hikers by the summer. The widening of 13th Street between Poplar and Hulman streets, already under way, also will continue in 2002.

Anderson also highlighted an expansion of city efforts to reach out to ISU, including a welcome party downtown for students.

"We intend to do that again," she said. Anderson also made personal attempts to reach out to ISU, making personal appearances on trips to Tambov, Russia and Tajimi, Japan with university groups.

Terre Haute would face some difficult issues in 2002 because of outside budget cuts and federal and state clean water mandates.

The city's plan to curb combined sewer overflow is due in April, and will cost between \$30 million and \$50 million over the next 10 years. It may have to paid for through increased sewer rates.

"When they hand down projects with no money to do it all, all they expect from you is to do it," Anderson said.

Cuts in funding for local road and street budgets will make it hard for the city to maintain the pace of street work it did in 2001, she said, adding that the countywide wheel tax will help.

Anderson then turned the program over to her department heads.

"I'd like to take credit for what they've done, but the only thing I can take credit for is hiring them," she said. "These people have done a wonderful job."

Highlights of the department heads' projects:

Newly created Public Safety Officer Bob Kiefner highlighted safety programs that had reduced the number of worker compensation claims in 2001, which could reduce insurance costs for the city. Kiefner also pointed to energy-efficiency upgrades of city buildings that will begin in 2002, paid for out of savings in utility bills.

Police Assistant Chief Jeff Trotter said the city's bicycle patrol along Wabash Avenue made 744 arrests during three summer months, including 15 drunken driving arrests. He said the patrol not only made the streets safer, but helped build a positive relationship with Terre Haute's young people who congregate along Wabash Avenue on summer evenings.

Barbara Lowe Cox, executive director of the city's new Human Relations

Commission, said the group has begun its mission of improving awareness, educating and providing mediation services.

Street Commissioner Cindy Wallace-Andrews said that her department had paved 17 miles of city street in addition to its regular maintenance work.

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It says victim liked it

depression and Gulf War Syndrome, an affliction caused by exposure to toxic chemicals in the Middle East.

He had been living in Garfield Towers for about a month when the accusations surfaced, according to court testimony.

Garfield Towers, a complex run by the Terre Haute Housing Authority on Terre Haute's north side, is home to elderly and disabled individuals with fixed incomes.

The alleged victim reported to

police Sept. 20 that on three different occasions between Sept. 15 and 17, Hanns hit her during sexual acts inside her apartment, Irene Miller, an investigator with the prosecutor's office, testified during a probable-cause hearing on Wednesday.

Each time the 28-year-old woman consented to have sex with Hanns, he hit her, including twice with his belt, Miller said. When she asked him to stop, at first he refused, the victim said.

Eventually he would stop, but not before leaving visible marks on

the woman's body — marks Miller said were consistent with what the woman said had happened.

Instead of lowering Hanns' bail, Kearns raised it to \$25,000. If Hanns were to make bail, he could not return to Garfield Towers to live or visit, nor could he make any contact with the alleged victim, Kearns ruled.

Kearns set a trial date of Dec. 20. Hanns was granted a public defender before being returned to the Vigo County Jail. He declined comment.

Citizens' advisory committee studies sewer problems during first meeting

BY PETER CIANCONE
TRIBUNE-STAR

Terre Haute officials will be looking to a newly formed citizens' advisory committee to help them solve problems with combined sewer overflows — a long-term project that will cost the city millions.

The 16-member committee met for the first time Thursday night to learn about the problem and how the study will progress to define alternatives.

"E. coli is the primary problem that combined sewers have in Terre Haute," said Dick Wagle of Hannum, Wagle and Cline, one of two engineering firms conducting the study for the city. The goal is to reduce, by order of the federal government, the amount of pollutants that flow into the Wabash River from the

city's combined sanitary and storm sewers.

While zero pollutants would be ideal, the federal and state regulators who will help the city plan a long-term control plan recognize there is a point where millions more could be spent without appreciably increasing the water quality.

"You're not going to be able to eliminate all the combined sewer overflows. It's just cost prohibitive," Wagle said.

E. coli is bacteria found in human and animal waste that can cause serious illness if ingested.

The committee will be asked to participate in a study that will build a computer model of both the flow within the sewer system and of the river itself to determine the location and extent of the problems.

"To solve [combined sewer overflow] problems, we're going to have to look at all kinds of solutions," said Scott Girman of Greely and Hansen Engineers.

Those solutions may include expanding the system to allow for storage within it, expanding the wastewater treatment plant or separating the sewer systems or a combination of the two.

The cost estimates, based on plans advanced by other cities, could run Terre Haute sewage-system rate payers from \$60 million to more than \$100 million.

"Early on, there's no way to know," said City Engineer Pat Goodwin.

The state has set a date of April 30, 2002 for the city to present to them the plan, part of which will include a timetable for putting it into effect.

January 19, 2011

[CSO plan displayed for public Monday](#)

Staff Writer The Tribune-Star

TERRE HAUTE — The final plan for handling Terre Haute's combined storm and wastewater overflows into the Wabash River will be presented one last time to the public Monday evening in City Hall.

A technical team from Hannum, Wagle and Cline, a Terre Haute engineering firm, will be presenting the plan at an informational public meeting at 6 p.m. Monday in the City Hall courtroom.

The plan is expected to reduce annual overflows of combined storm and wastewater — known as CSO — into the Wabash to just seven times a year, team officials said. Currently, there are overflows of combined stormwater and raw sewage into the Wabash each time the city receives a significant rainfall — something that happens dozens of times each year.

The plan is expected to cost about \$118 million over the next 25 years. It will include the use of a large underground storage tank and the use of a temporary storage pond near the river on property formerly owned by International Paper.

In November, officials with the Terre Haute Sanitary Board of Commissioners selected the "long-term control plan" to be presented Monday. After Monday's public meeting, the plan will be presented to the Indiana Department of Environmental Management for final approval.

November 17, 2010

[Sanitary Board picks city CSO plan](#)

Arthur Foulkes The Tribune-Star

TERRE HAUTE — The Terre Haute Sanitary Board of Commissioners has selected a plan for dealing with the city's combined stormwater and wastewater (CSO) overflows into the Wabash River.

The four-person board, meeting Tuesday in City Hall, selected a plan expected to cost about \$115 million over the next 20 to 25 years. The plan includes the use of a 15-acre, open-air temporary holding pond on property formerly owned by International Paper.

Other options that had been considered by the board, including building an approximately two-mile tunnel under First Street, would require Terre Haute sewer rates to become "much higher, much sooner," said Steve Witt, president of the board, speaking just before the board's vote. The tunnel option would cost approximately \$150 million, city officials said.

Federal law requires cities and towns to prevent CSO from entering rivers and streams. At present, anytime there is a significant rainfall, Terre Haute's wastewater treatment plant is unable to handle the extra volume. As a result, the "overflow" from the city's sewer system simply drains directly, untreated, into the Wabash River dozens of times each year.

In order to comply with the law, Terre Haute and other cities have been working with state officials to devise "long-term control plans" to handle CSO. While federal law calls for eliminating all such overflows, state environmental officials are working with cities and towns to make big reductions in CSO as opposed to its complete elimination.

Under the plan selected Tuesday by the Sanitary Board, Terre Haute would reduce its number of CSO overflows to about nine per year. The plan also calls for a large reduction in the number of overflow points. Currently, there are 11 pipes that dump CSO into the Wabash River from Terre Haute. The board's plan would reduce that number to two.

Funding for the CSO plan will come from residential and business sewer bills.

The most controversial element of the CSO plan approved Tuesday is the use of a large pond, or "lagoon," on the former International Paper property on the east bank of the Wabash. Under the plan, the pond will be used to temporarily hold CSO when the sewage treatment plant is at capacity.

Wabash River Development and Beautification Inc., better known as Riverscape, is a not-for-profit organization that has opposed use of the pond out of concern that it would have a foul odor or interfere with riverfront development.

A public meeting to answer questions about the selected CSO plan is expected to take place in January, said Toni Presnell, a project manager with Hannum, Wagle & Cline Engineering, the Terre Haute-based firm that drew up the long-term control plan.

In December, a "technical team" from the city will present the plan to officials with the Indiana Department of Environmental Management, Presnell said. If IDEM recommends any changes, the city will have a month or two to change the plan before a final version is due to state officials in February.

News From Terre Haute, Indiana

January 19, 2011

CSO plan displayed for public Monday

Staff Writer

The Tribune-Star

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In November, officials with the Terre Haute Sanitary Board of Commissioners selected the “long-term control plan” to be presented Monday. After Monday’s public meeting, the plan will be presented to the Indiana Department of Environmental Management for final approval.

News From Terre Haute, Indiana

January 25, 2011

Plan to control wastewater gets hearing; on to state

Riverscape rep fears smell from CSO storage pond

Arthur Foulkes

The Tribune-Star

TERRE HAUTE — A plan to drastically reduce the amount of untreated wastewater that enters the Wabash River from the city of Terre Haute got a final public airing Monday night in City Hall.

A “technical team,” lead by Hannum, Wagle and Cline, a Terre Haute engineering firm, presented the \$120 million plan to about 20 area residents. The plan will cut, by 96 percent, the amount of combined stormwater and wastewater (known as “CSO”) entering the river over the next 25 years, team officials said.

The city’s plan, known as a “long-term control plan,” was chosen by the Terre Haute Board of Sanitary Commissioners in November from among several possible alternatives for dealing with CSO and meeting state and federal environmental requirements.

The plan will cause the average residential sewer bill to increase from about \$37 per month today to about \$69 per month (in current dollars) in 25 years, team officials said.

Among those at the 90-minute meeting in the city courtroom were members of Wabash River Development and Beautification, better known as “Riverscape.” The not-for-profit organization

has developed ambitious plans for riverfront development in Terre Haute. As in the past, some Riverscape members said they oppose the long-term control plan's proposed use of a 15-acre, open-air pond near the river for temporary storage of CSO after significant rains.

"I think that I can speak for the Riverscape board that we oppose this plan," said John Mutchner, president of the organization, who attended the meeting. Riverscape proposals for the riverfront clash with plans for a CSO storage pond, he said. The Riverscape vision includes a recreational lake and commercial development, such as restaurants, in the area of the proposed storage pond, Mutchner said.

Terre Haute has a reputation for being a "smelly city," and using the pond threatens to keep that reputation alive, added Charlie Williams, another Riverscape member at the meeting.

When asked whether there will be any odor, Mike Cline of Hannum, Wagle and Cline told the meeting the CSO in the pond will be "very dilute" – composed of about 99 percent stormwater and 1 percent sewage. The pond would be used only after a significant rain and would be rinsed out with a water cannon after being drained.

Speaking later Monday evening, Mayor Duke Bennett repeated his belief that the pond will produce no smell. There is currently a ditch near the pond that often contains untreated CSO and it produces no smell, he said. The CSO in the pond will be treated and will be drained after a few days, he added.

"What we're going to do is 100 times better than what's down there now," Bennett said.

Bennett also said he understands that members of the technical team would hesitate to give a blanket guarantee of absolutely no odor. "Consultants will never say 100 percent there will be no smell," he said. "I'm confident it is not going to smell."

Some members of Riverscape have said they favor building a large tunnel to store CSO instead of using the pond. Such a plan would cost about \$160 million and – because it would require relatively quick construction – would cause sewer bills to increase sooner, Cline said.

The city's CSO plan, which is available at www.terrehauteleanwater.com, will next be reviewed by the Indiana Department of Environmental Management. Construction of the first phase of the plan is scheduled for 2014.

September 26, 2010

[Plan to reduce raw sewage discharges into Wabash River enters final stages](#)

Arthur Foulkes [The Tribune-Star](#)

TERRE HAUTE — City officials and engineers are in the final stages of hammering out a plan to drastically reduce raw sewage discharges into the Wabash River.

For 10 years, local leaders have been putting together a “long-term control plan” to greatly reduce the number of times each year that a combination of raw sewage and rainwater enters the river from Terre Haute sources. Such a plan is part of an effort by Terre Haute and hundreds of other U.S. river communities to comply with the federal Clean Water Act.

“We have some solid alternatives,” said Chuck Ennis, city engineer, speaking of about five realistic plans for dealing with the city’s combined sewer overflow (CSO) problem. “It’s coming together.”

The city’s proposed long-term control plans range in cost from about \$56 million (which likely would not meet EPA requirements) to approximately \$170 million, according to engineering estimates. This expense will come on top of at least \$100 million the city already is planning to spend to expand and upgrade its wastewater treatment plant to meet federal clean-water mandates.

In all, 108 Indiana cities and towns are required by the Clean Water Act to come up with long-term control plans to eliminate CSO discharges into rivers, streams and lakes. Like Terre Haute, all of these communities have very old sewage systems that combine rainwater and sewage in the same underground pipes.

Most of Indiana’s CSO communities already have completed their long-term control plans. Terre Haute, which has been working on a long-term control plan since 2000, will be among the last to get its plan approved.

“We are expecting [Terre Haute’s] long-term control plan around February 2011,” said Amber Finkelstein, a spokeswoman for the Indiana Department of Environmental Management, which is supervising all CSO plans in the state. IDEM will have the final say on whether a community’s plan is approved or rejected.

The fact that Terre Haute’s plan will be among the last to be approved is not necessarily a reflection on the city, Finkelstein noted. Putting a plan together, especially for the larger CSO communities, “is a very complicated process,” she said. “There is a lot that has to be looked at and a lot of documents that need to be put together and testing that needs to be done. So it’s not unusual for it to take some time.”

Timetable

Terre Haute city officials — working with local engineering firm Hannum, Wagle & Cline, IDEM and a citizens advisory committee — have whittled down the number of possible CSO plans to about five. Next month, the city’s Sanitary Board of Commissioners will review the various plans. Around the same time, the 10-person citizens advisory committee also will review the plans. Then, in November, the Sanitary Board will select the plan (or combination of plans) it likes best.

But that’s not the end of the process.

After the Sanitary Board makes its decision, a public meeting will take place within a week or two to discuss the plan. Then, in late November or early December, a “technical team” of engineers, lawyers, city officials and others will present the selected plan to IDEM officials. If IDEM recommends any changes, the city will still have a month or two to revise the plan before a final version is due to the state regulatory agency in February.

“Every single long-term control plan is very, very different,” Finkelstein said. “It needs to be appropriate for the city, for the economic climate of the city. And each sewer system is different, as well. We’ll work with [Terre Haute] to choose [a plan] that ... will have them in compliance with the Clean Water Act and be economically feasible.”

Lagoon proposal

For many people, the big question surrounding Terre Haute’s final long-term control plan is whether it will include the use of a 15-acre open-air, temporary holding pond — often called a “lagoon” — for CSO on the former International Paper property near the Wabash River. The pond’s job would be to hold CSO (that currently goes into the river) for a short time after a significant rain. The CSO in the pond then would be pumped — within 48 hours — to the city’s wastewater treatment plant.

Mayor Duke Bennett and City Engineer Ennis both favor using the holding pond, which they say will save Terre Haute millions of dollars. That idea, however, is not universally popular.

Wabash River Development and Beautification Inc., better known as “Riverscape,” has included some vocal opponents of the holding pond concept. The Riverscape group views the Wabash River as a huge, mostly untapped asset for tourism, recreation and business and residential development. Having an open-air CSO holding lagoon along the east bank of the river does not necessarily fit that vision.

“Our position remains that we just don’t see any reason to add a new source of potential odor” along the river, said Charlie Williams, a spokesman for Riverscape. However, Williams said Riverscape applauds the mayor for his efforts to eliminate odors at the wastewater treatment plant and sympathizes with his need to present a CSO plan to IDEM soon.

Riverscape believes more affordable and superior alternatives to the open-air holding tank will emerge, Williams said, even if those alternatives emerge after the February IDEM deadline. The final CSO plan can be changed, he said. “We’ve done our homework. ... We trust there are going to be other options.”

How much will it cost?

Terre Haute residents currently enjoy some of the lowest sewer bills in the state, according to figures provided by H.J. Umbaugh & Associates, an Indianapolis accounting firm. This remains true despite the fact that in July, the Terre Haute City Council voted to nearly double, in two stages, local sewer rates over an 18-month period. The rate increases will bring the average monthly sewer bill in Terre Haute to more than \$32 per month, or about \$389 per year by 2012.

But that's just the beginning. Even one of the lower-cost options among the proposed long-term control plans would increase the average residential sewer bill to about \$66 per month or about \$800 per year, according to estimates provided by the city's Department of Engineering. The most expensive proposed CSO plan — one that would not include use of a temporary holding pond — would cause the average residential monthly sewer bill to reach about \$79 per month or about \$947 annually, according to the estimates.

The cost of the various alternatives matters, in part, because IDEM — in approving or rejecting a plan — takes expense into consideration. IDEM wants to ensure compliance with the Clean Water Act, but it also wants to ensure that the city's rate-payers can afford the plan, IDEM's Finkelstein said. "The best plan, if it can't be implemented, doesn't do much good," she said.

Ennis said he favors a plan that would utilize the open-air holding pond, a large underground storage tank (near First and Spruce streets) and a variety of other, smaller solutions. This piecemeal approach would allow the city to tackle its CSO problem in manageable and affordable stages, he said. It also would allow the Sanitary Board to engage in other projects as needed in future years. The most expensive plan, on the other hand, would leave the board unable to afford to do anything else, he said. "We can do it in manageable pieces and knock it off a little at a time," Ennis said.

The 'best' solution

If city officials have learned anything in the CSO long-term control planning process over the years, it's that the standards set by federal and state environmental officials can change. Hannum, Wagle & Cline completed an initial long-term control plan in 2002, Ennis said. That plan was later essentially dropped when EPA standards changed, he said. And those standards could change again.

That's why Todd Nation, a City Council member and a member of the citizens advisory committee, favors the most expensive plan, at least at this point.

Nation said he and many other members of the 15-member advisory committee favor a plan that calls for building a large storage tunnel from approximately Spruce Street to the former International Paper property under First Street.

The tunnel, which would be up to 17 feet in diameter, would be approximately two miles long and as deep as 40 feet below ground, Ennis said. It would cost at least \$146 million, according to engineering estimates.

Still, Nation said many members of the advisory committee favor the tunnel because it would solve the CSO problem once and for all. If EPA standards tighten over the years, why not deal with the problem now rather than return to it in the future, he said.

The Clean Water Act says there can be no raw sewage entering the river, Nation said. The lower-cost long-term control plans would not meet that standard. "We'll only get this chance once in

our lifetimes,” Nation said. “I’d like to see us do it right and solve our CSO problem going forward. ... That was our recommendation.”

Nation notes, however, that the citizens advisory committee, which met once or twice a year over the past eight years, did not have specific cost figures available when it made its recommendation. Still, the committee did understand that the idea of a large tunnel under First Street would be the most expensive option.

Will it smell?

A different argument against using an open-air holding pond as part of the CSO solution involves what critics worry would be possible odors coming from the pond. Terre Haute has made an effort over the years to eliminate odors along South First Street and Prairieton Road, and the prospect of adding another potential source of odor is a concern, critics of the pond have said.

Doug Ralston, an engineer with Bernardin Lochmueller & Associates, an Evansville-based company that builds retaining ponds, said if the pond is designed and operated correctly, “it should not be odorous. If it is, they haven’t designed it or operated it properly.”

Ennis also believes the proposed Terre Haute holding pond would not smell.

On a sunny day, the city’s combined sewer system is holding a lot of raw sewage, Ennis said. When it rains significantly, that sewage is washed to the sewage treatment plant in something appropriately called “the first flush.” After the first flush, the sewage lines are relatively free of sewage and contain mostly flowing stormwater, which is what will end up in the holding pond.

“It’s predominantly stormwater,” Ennis said. While the stormwater will contain some raw sewage, it will be a relatively small amount, he said, and it will be flushed into the treatment plant soon after it fills the pond.

Washington, a town of about 30,000 people east of Vincennes, recently has contracted with Bernardin Lochmueller to install a large holding pond near a residential and industrial area, said Ed Barnett, the Washington city engineer. Unlike the proposed Terre Haute pond, the Washington pond would contain the city’s “first flush,” Barnett said. As a result, “there’s going to be an odor at times. There’s just no way of getting around that. But we’re hoping to keep it to a minimum. To me, there shouldn’t be a lot of odor. There may be times when there is some and there’s going to be times when there’s none.”

“Our pond will be much cleaner” than Washington’s, Ennis noted.

As with Terre Haute, Washington will be required to empty its contents within 48 hours, Lochmueller’s engineer Ralston said. “If they hold it less than 48 hours, the likelihood of it being odorous is probably remote,” he said.

Sewer system issue has city, redevelopment, education officials debating options

By Arthur E. Foulkes

TERRE HAUTE — Many people probably don't realize it, but dozens of times each year, raw sewage from the city of Terre Haute flows directly into the Wabash River.

Because of the size of the city's sewer system, parts of which dates back to the Civil War, anytime it rains at least a quarter of an inch, sewage spills over from the sewer system into the river.

"Right now all that stuff is going in the river," said Mayor Duke Bennett, who is working with state and federal environmental officials to reduce the city's contribution to pollution in the Wabash.

City officials, facing mandates from the United States Environmental Protection Agency, want to help clean up the river at a price the city's residents and businesses can bear. "We want to find the most cost-effective solution," Bennett said.

Terre Haute is not alone. All across the Midwest, cities with 100-plus year-old sewer systems, are trying to find ways to clean up their nearby rivers and streams by keeping sewage out. In Indiana, 107 communities are facing this problem, said Amber Finkelstein, public information officer for the Indiana Department of Environmental Management.

"This is a national problem," Finkelstein said. The total bill for dealing with the problem in Indiana will be about \$2.7 billion, she said. The plan to keep excess sewage out of the White River in Indianapolis is \$1.7 billion. Terre Haute's total price tag is expected to be around \$130 million, Bennett said.

From Outhouses to Bathrooms

The problem dates back to the days before indoor plumbing. Cities, such as Terre Haute, built rain water drainage systems under city streets in the late 1800s. In Terre Haute, these drains took the form of large brick tunnels several feet in diameter. These big underground tunnels, which are often large enough to walk in, were designed to drain storm water from city streets into the Wabash River.

Then, years after these systems were built, indoor plumbing started being introduced in many homes. As a result, residential sewer lines started being routinely connected to the big underground drains.

"The invention of indoor plumbing meets the invention of storm drains," said Chuck Ennis, Terre Haute's city engineer. The result was a "combined sewer system" that directly deposited

rain water and raw sewage into the Wabash River for about 100 years until the city modified the system by building its sewage treatment plant south of the city.

When the city built the sewage treatment plant in the 1960s, it also built a large tunnel connecting the existing combined sewer lines to the plant. As a result, much of the city's sewage could then be diverted through a large tunnel — called an “interceptor” — away from the river.

But the new plant and the interceptor did not solve the whole problem. On sunny days, the system works fine, but when it rains, the system is overloaded and raw sewage again finds its way directly into the river.

“It doesn't take much of a storm to cause an overflow into the river,” Ennis said. Quite simply, the combined sewer system is not large enough to hold all the water generated by even a moderate rain.

On the banks of the Wabash

Today it's possible to see where Terre Haute's sewer system overflows into the Wabash. Two of the nine combined sewer drains dump their overflows into the river at Fairbanks Park and the other seven outflows are scattered between the park and Chestnut Street, where the farthest-north outflow is located. The outflows are fenced-in and signs warn potential swimmers that these drains contain “sewage or wastewater pollutants.”

When sewage and wastewater flows directly into the river through the big pipes, its called a “combined sewer overflow,” or CSO. Stopping CSOs or reducing them dramatically — is the goal of the current effort being mandated by the U.S. EPA and IDEM. Terre Haute has no choice in this matter, the mandate is from the federal government and saying no is not an option.

“We have no choice,” Bennett said, adding this is also an “unfunded mandate” from the federal government. The EPA and IDEM call the tune, but Terre Haute must find a way to pay for it.

“This is the biggest [unfunded mandate] I know of,” Bennett said.

Where to put the Stuff

“It's all about storage,” Ennis said referring to ways to solve the CSO problem. If sewage and storm water can't be allowed to overflow into the Wabash, it has to go someplace for temporary holding until it can be pumped more slowly to the sewage treatment plant, he said.

But finding places to store the CSO is no easy task. One idea the city seems determined to try is the use of “lagoons” formerly owned by International Paper before that company closed its Terre Haute operations in 2007.

Late Friday, city officials announced the Terre Haute Sanitary District had reached a “purchase agreement” with International Paper to buy 283 acres of land on the east side of the Wabash, including about 37 acres of lagoons. International Paper formerly used the lagoons for its own wastewater disposal system. Assuming the sale is finalized, the city hopes to convert those lagoons for use in its CSO problem.

It was not immediately announced how much the city agreed to pay for the IP property, but city officials had said earlier buying the property would save the city from the cost of spending \$9 million to build lagoons from scratch. In an interview Thursday, Bennett said the purchase would save the city more than \$8 million of that \$9 million.

An additional idea for storing CSO is to build a giant underground holding tank in the vicinity of First and Chestnut streets — an area where Indiana State University hopes to expand. City officials say such a tank, which would be the size of a city block, is needed on the city’s north side even if lagoons are used in the south. This is because the outflow from two CSO drains in that area is tremendous, Ennis said. The two CSO drains that spill into the Wabash near Chestnut Street handle all of the CSO for the north side of Terre Haute, he said.

Not so Fast

Not everyone is in favor of the idea of using lagoons and a big underground storage tank for CSO storage. The most vocal objections are coming from the Wabash River Development and Beautification, Inc., better known as “Riverscape.”

Riverscape is a not-for-profit, private group working on a plan to develop the east and west sides of the Wabash River from U.S. 63 to Interstate 70. The group — working with design engineers at HTNB under a local government contract — has drawn up plans for riverfront development, including areas for recreation, business and wildlife.

“We’re not trying to be obstructionists” or drive up sewer rates, said John Mutchner, president of the Riverscape group. “But we do have a vision for the future of that area and we are holding to that vision.”

Basically, people involved with Riverscape are concerned that lagoons would smell bad and look bad. Earlier Riverscape development plans had called for placing a marina where the lagoons would be, Mutchner said. CSO lagoons could “severely impact our plans for Riverscape in that

area,” he said. The city is looking for the most inexpensive way to meet the federal mandates, but “cheapest is not always best,” he said.

Bennett, in an October presentation, tried to reassure Riverscape committee members by noting that the city of Fort Wayne uses a lagoon system to help with its CSO problem and, he was told, there is no smell. In fact, communities have developed along side the lagoons since they were built, Ennis said. The lagoons would also feature cat tails and other natural growth to make the appearance blend with their surroundings, he said. And the CSO would be filtered and treated before entering the lagoons themselves, Bennett said.

Meanwhile, the idea of a large storage tank near First and Chestnut streets is no more welcome.

Indiana State University president Dan Bradley, who is also a member of the Riverscape committee, said ISU is “very much opposed to that idea.” In fact, the university is looking to expand toward the river in that area and the idea of a large, underground CSO tank is not appealing, he said.

The university is concerned that the tank would involve truck traffic at certain times of year and would possibly have an odor, Bradley said, adding he would like the city to rethink the whole CSO problem starting with a “clean piece of paper.”

What’s this going to Cost?

Whatever the city does, the CSO plan is expected to cost around \$130 million over the next 20 years, Bennett said. In addition to the lagoon and underground storage tank ideas, several other ideas have been considered. One idea, to basically rebuild all of the city’s sewers into a separated storm water and sewage disposal system, would cost about \$300 million, Ennis said.

To put all this in some perspective, the city’s spends about \$100 million annually to pay for everything it currently does, including police and fire protection, wastewater treatment, parks, street repairs, courts and more.

To pay the bill for whatever it does, the city will need to raise sewer rates. In fact, Bennett said there is no question sewer rates, which average \$15 per month in the city now, will need to increase next year. Years down the road, to cover the CSO improvements, rates will reach about \$55 per month, Ennis said.

In the spring, the city is expecting to hand over its “long term control plan” to IDEM for approval. In the meantime, city officials are working closely with IDEM to make sure there are no surprises, Ennis said.

“They are on track,” IDEM’s Finkelstein said of Terre Haute’s progress in drafting a new CSO plan. IDEM is expected to approve or reject the city’s plan next September, city officials said.

If the city does not adopt a plan agreeable to state and federal officials, it can be fined, Bennett said. He also worries that if sewer rates increase too much, residents and businesses currently in the city will move into the county or away from the area completely, he said.

Yet others, especially those in the Riverscape group, are concerned that by doing things the least expensive way now, the city may be sacrificing its best chance for long term growth and improvement. The Riverscape plan is potentially “transformative,” Bradley said, adding it deserves a “high level” of importance in future plans for the city.

Mutchner agrees. “The mayor is in a tough situation. We appreciate that,” he said. The mayor is concerned about sewer rates and affordability, he added. “That’s his job. Our job is to plan for the future and in the process improve Terre Haute’s image. We’re talking about quality of life.”

May 19, 2010

City buys International Paper property

Arthur Foulkes The Tribune-Star

TERRE HAUTE — After nearly a year of talks, the City of Terre Haute has closed on a deal to buy much of the former International Paper property on Prairieton Avenue near the Wabash River.

The purchase of the property from International Paper for \$267,000 will allow the city to move forward with plans to use a wastewater treatment pond located on the property to store combined stormwater and wastewater. That “combined sewer overflow,” or CSO, currently flows directly into the Wabash River during a significant rain.

“It’s really a very important part of solving our CSO problem and we gain a lot of green space” through the purchase, said Mayor Duke Bennett on Wednesday.

The U.S. Environmental Protection Agency is requiring big reductions in the number of times cities allow combined wastewater and stormwater to flow directly into rivers. For Terre Haute to meet its EPA mandate, large storage facilities for the CSO must be built at a cost of approximately \$130 million over the next 20 years, city officials have estimated.

In announcing the purchase, Bennett emphasized that only 15 acres of the total 283 acres of International Paper land purchased will consist of the wastewater storage pond.

Much of the rest of the property will become a “riverfront passive park,” including a pedestrian

trail and river overlook. The remaining property will be used as a wooded wildlife area with “primitive trails,” he said.

In the past, members of Wabash River Development and Beautification Inc., better known as “Riverscape,” have expressed strong opposition to the use of the International Paper wastewater pond in the city’s CSO plan. Riverscape officials, who have their own sophisticated plans for riverfront development, have said the ponds will likely have an odor and be unattractive.

Bennett disputes both claims, saying the city plans to make improvements to the pond, including tree plantings and other efforts to make the pond difficult to see. He also says there will be no offensive odor from the pond.

Giving a “ballpark figure,” Bennett said the city will need to spend “a couple of million dollars” in getting the pond ready for use and on improvements, including an “earthen berm,” designed to make the pond difficult to see.

“It will look natural,” Bennett said, adding that the pond will be invisible except from the air or from westbound Interstate 70 during months when trees are bare “if you look that way.”

The pond was previously used by International Paper as part of its own wastewater treatment system. The company’s wastewater treated in the pond was not CSO, but rather consisted of wood and paper pulp, city officials have said.

The city must get EPA and Indiana Department of Environmental Management approval for its CSO plan, which includes use of the pond. The deadline for the city to submit its plan for federal and state approval is in September. Bennett said the state has already expressed support for the use of the International Paper pond as a way to meet the CSO mandates.

“We don’t expect [IDEM] not to approve it,” Bennett said. “They are in full agreement. That’s definitely a solution that they approve.”

The soonest the pond could be used to store CSO would be in two or three years, Bennett said. The storage will only be temporary – lasting only a few days – before the CSO will be pumped into the city’s wastewater treatment facility, Bennett said. At present, the wastewater treatment facility is not large enough to handle combined rain and wastewater produced during a storm, city officials have said.

International Paper closed its doors in 2007. The city entered into a purchase agreement to buy most of the company’s property in late 2009, but talks with the company started nearly a year ago, Bennett said.

International Paper still owns about 65 acres of the property, which is currently for sale, he said.

The land purchased from International Paper will officially become property of the Terre Haute Sanitary District, whose board of directors voted to approve the purchase. Funds for the purchase came from property taxes supporting the Sanitary District’s budget, not from the city’s general

fund, Bennett noted.

“The acquisition of the International Paper property is key to both the implementation of the city’s combined sewer overflow long-term control plan as well as the planned redevelopment of the east side of the Wabash River,” said Steve Witt, president of the Terre Haute Board of Sanitary Commissioners in a news release issued Wednesday by the City of Terre Haute.

News From Terre Haute, Indiana

May 14, 2010

Council hears case for doubling sewer rates

Arthur Foulkes

The Tribune-Star

TERRE HAUTE — Terre Haute could see a doubling of sewer bills over the next two years to help pay for improvements to the city’s wastewater treatment facility.

Members of the Terre Haute City Council at their regular meeting Thursday night heard from a representative of an Indianapolis-based accounting firm stating that average monthly sewer bills would need to increase from \$16.54 now to \$32.42 in 2012 to pay for needed wastewater plant improvements.

“This isn’t going to happen overnight,” said Gerald Malone, a representative of Umbaugh and Associates, the accounting firm hired by the city. A first rate increase could take effect in July and the rest of the increase could take effect in January 2012, he said.

The higher sewer fees are needed to pay for approximately \$100 million in improvements to the city’s wastewater treatment facility south of town. On top of those improvements – and not covered by the proposed increase – the city needs to spend about \$50 million on its “combined sewer overflow” (CSO) problem, said Mayor Duke Bennett, who also spoke to the council.

Part of the \$100 million in improvements to the wastewater treatment facility would also address the CSO situation, Bennett noted. The federal government is mandating that Terre Haute and other cities find ways to keep combined stormwater and wastewater out of rivers, such as the Wabash, during strong rains.

At present, the average Terre Haute sewer bill is significantly less than in many other Indiana cities such as Lafayette, South Bend, Evansville, New Albany, Columbus and Jeffersonville, according to information provided by Umbaugh. Even if the rate were doubled, Terre Haute’s average bill would remain lower than the average current bill in Riley, Rosedale, Farmersburg and Brazil. It would, however, be higher than the average current bill in several larger Indiana cities, according to Umbaugh.

Part of Terre Haute’s annual wastewater treatment expenses are covered by about \$7 million in annual property taxes, Bennett noted.

Meanwhile, the council voted Thursday to approve a rezoning request to allow for the expansion of Andrews Towing on South 15th Street. The 7-2 approval came despite opposition from representatives of Mike's Towing on Terre Haute's north side. The council turned down a request for rezoning last year that would have allowed Mike's to expand. Councilmen Neil Garrison, D-5th, and Rich Dunkin, D-1st, voted against the rezoning request.

The council also voted 8-1 in favor of transferring about \$450,000 from the city's "rainy day" fund to the employee group health plan. The plan has experienced some "unexpected high claims," said City Controller Leslie Ellis. Without the transfer, the city would be unable to meet its medical bill obligations, she noted.

Council President Garrison voted against the transfer, saying the funding to pay for the group health plan should come from the city's general fund budget. City officials have stated that the city is running below projected budget expenses this year and so the city should use those additional funds to cover the medical expenses, he said.

"Essentially what we're doing is increasing the budget" by covering the medical expenses with rainy day money, Garrison said after the meeting.

Also Thursday, the council voted without opposition to increase the speed limit on South 13th Street between Hulman Street and Margaret Avenue from 30 to 40 mph. It also voted without opposition to convert a two-way stop intersection at 24th Street and Seventh Avenue into a four-way stop.

Also during Thursday night's meeting, which was the first for new Councilman Pat Ralston, D-2nd, the council heard a request from Councilman Norm Loudermilk, D-3rd, for the city to investigate the possibility of suing the State of Indiana to prevent a statewide referendum on making property tax caps part of the state constitution. Loudermilk said the caps currently violate the state constitution.

"I think we need to stop this," Loudermilk said. "Stop it before it gets to a constitutional vote and referendum and hopefully get this law repealed."

Finally, the council confirmed 10-year real and personal property tax abatements for Sony DADC to expand its Blu-ray operations in Terre Haute. The abatement will save the company about \$1.7 million in local property taxes over the next decade.

February 27, 2010

FLASHPOINT: Many positive things planned for future development along Wabash River

A recent letter to the editor in the Tribune-Star discussed some issues regarding future development along the Wabash River in the City of Terre Haute. Many positive things have

already occurred on both sides of the river and many more are planned for the future. It is extremely important that the entire community work together to solve various problems and to implement solutions that will positively enhance our riverfront. The following are some very important points to consider as we move forward:

The efforts of the Wabash River Development & Beautification Committee have been very successful and have directly resulted in the development of a new community asset on the west side of the river. There are also things beginning to happen on the east side. All of these activities are a great example of how public and private groups can work together to accomplish goals that make this a better place to live and work. The City of Terre Haute applauds all of these efforts to transform our community's riverfront.

In support of this continuing riverfront planning process, the City of Terre Haute provided one-half (\$50,000) of the funding needed to hire a consultant in 2008 to perform a study and to develop a master plan. The result is a "first step" planning document that provides numerous ideas and concepts to be considered all along the riverfront. None of the components of the plan are "set in stone" but we are all hopeful that many of these ideas will turn into specific projects that will drive positive riverfront development.

The City of Terre Haute (like most communities all across the country) is under an unfunded federal mandate to address our Combined Sewer Overflow (CSO) problem. We have a combined sewer/storm water system in Terre Haute which means that the system carries both sewage and storm water to the treatment plant for processing. Throughout the year we experience numerous weather events that produce significant rainfall and our sewer system cannot handle the increased load. When this occurs (average is about 25 times per year) the system discharges the overflow directly into the river. These sewer system overflows are comprised of 95 percent storm water and 5 percent sewage. The total estimated annual volume of our CSO discharges is about 300 million gallons per year.

For the past 10 years the City has been working on a CSO compliance plan. The primary solution to address this problem consists of creating the infrastructure to temporarily store the overflow versus discharging it into the river. The potential options include tunnels, in-line sewer storage, underground tanks, and lagoons/ponds/basins. Numerous alternatives have been considered and evaluated over the years and we are now getting close to submitting a final plan that will include a combination of the above options. We are under an "State Judicial Agreement" to complete our plan by September 2010 and we have been working with the Indiana Department of Environmental Management (IDEM) and the Environmental Protection Agency (EPA) every step of the way. They believe that we are on the right track to achieve compliance. CSO solution planning activities have been conducted in twice monthly public meetings of the Sanitary Board of Commissioners and also through several CSO Community Action Committee meetings.

As part of riverfront development planning, it is extremely important to keep in mind that a significant amount of the City's existing sewer system components exist within the riverfront planning corridor. The main interceptor sewer runs along the river from Spruce Street all the way to I-70, there are 10 CSO outfalls that discharge directly into the river at various points along the bank, and the city's largest sewage lift station is located next to the river at I-70. It is a fact that

the majority of future sewer/CSO improvements will occur in and along the riverfront area.

A new opportunity to help address the CSO problem came into the planning process this past summer. The City has had several discussions with International Paper regarding the future use of an existing lagoon system they have used to treat their waste water for the past 35 years. After significant discussion with IDEM, City Engineering, Waste Water, and our CSO consultant, we all agreed that we should continue formally investigating this possible CSO solution option.

The potential CSO "Lagoon" Project can best be described as one part of the overall CSO storage solution. It would be used to capture the CSO output that currently goes directly into the river and temporarily store it in a holding pond. The CSO output would pass through a clarifier that will remove any solid materials such as leaves, sticks, waste, etc. Once the storm has passed and the sewage plant catches up with processing the flow, the contents of the lagoon will be pumped back to the sewage plant for treatment. The stored overflow will be in the pond about five to seven days after each event and this situation will typically occur eight to 10 times per year.

Some people have called this proposed facility a "sewage lagoon" and that is simply not true. A sewage lagoon is comprised of 100 percent raw sewer discharge directly from a sewer pipe. In these types of sewage lagoons, the waste is treated via a natural process over a long period of time and they will emit odors. Our proposed project is officially called a CSO pond (or basin) and it is used to temporarily hold the CSO overflow. This project is an increasingly common alternative to underground storage and is a much "greener" solution. The CSO ponds will not smell any different than the river would ever smell. This administration simply will not support any city controlled project that would create any new odors in our community.

It has also been suggested that the City of Terre Haute is seeking the "cheapest solution" and not the best solution. The rules and regulations are determined by the EPA and IDEM, not the City of Terre Haute. The plan approval process consists of two simple components: 1. The CSO plan must meet all mandated requirements. 2. It must be affordable to the community. The plan's affordability is determined by calculating 2 percent (that is the minimum and it could go higher) of the median household income in Terre Haute. That calculated dollar figure then drives the solution options because the final approved plan will be based on the ability of the sewer users to pay for all improvements. It is likely we will be required to spend a minimum of \$50 million dollars over the next 20 years to address the CSO problem. The final total will be determined when the plan is approved.

One of the primary goals of this city administration is to eliminate the odor created by the sewage treatment plant. For the past two years we have been planning and evaluating various options and are now moving forward with a specific plan which includes several projects that will eventually eliminate the odor. Over the next 10 years, the City will spend an additional \$125 million dollars (above and beyond the CSO solutions) to upgrade the treatment plant. These improvements will put us into compliance with all state and federal requirements and finally get rid of the odor.

The treatment plant upgrades and CSO solutions are obviously very complex and expensive

activities. The whole regulatory purpose behind these mandated projects is to clean up the river. The other benefit we gain is a much improved sanitary and storm water infrastructure which will support future growth and development in our city. Please visit the following web-sites: www.terrehaute.in.gov/

[mayors-office/current-issues](#) and www.terrehaute-cleanwater.com for more information. We all have a responsibility to work towards these public goals together via positive dialogue and compromise. If we do, the entire community will benefit from a remarkable transformation of our riverfront that we can all be proud of.

March 24, 2007

Several Valley communities dumping contaminants in Wabash River

By Austin Arceo

TERRE HAUTE — Clinton resident Troy Jones lives near the Wabash River, which he avidly takes advantage of when he wants to go fishing and boating in and near Terre Haute.

But he has long since abandoned his childhood hobby of swimming in the river.

“To me, the water’s changed,” Jones said, “like it’s not as clean as it used to be.”

He knows of the potential health complications posed by contaminants, some of which come from the nine active Terre Haute sites known as outfalls that dump a combination of storm water and untreated sewage into the Wabash River during heavy rains or when excessive snow melts. A 10th outfall, the plant’s main discharge that normally releases treated water, discharges partially treated sewage “blended” with completely treated water during heavy storms.

City sewers initially designed to hold storm water became “combined sewers” when people started hooking indoor plumbing to the system, according to a city-issued brochure describing combined sewer overflows.

Now, when heavy storms overwhelm the sewers, rainwater and sewage escape through the system’s exit points — the outfalls — and directly into the Wabash River.

They’re known as CSOs, or combined sewer overflows.

In 2005, Terre Haute sewers discharged more than 350 million gallons of storm water and sewage into the Wabash River, Terre Haute officials reported to the Indiana Department of Environmental Management. Last year, reports showed the city’s sewers spewed almost 620 million gallons of the combined contamination into the river.

Terre Haute’s Long-Term Control Plan, a state-mandated proposal that offered solutions to limit local combined sewer overflows, estimates that 284 million gallons of the storm water and sewage is discharged in an average year.

But Keith Zinkovich, assistant construction foreman with the city's Wastewater Utility plant, said that some of the calculations in the Long-Term Control Plan were inaccurate, causing the estimate to be lower than what it should have been. Part of the sewer model was changed, which better calculated combined sewer overflows that occur during smaller storms.

"So the new model not only shows more overflows because it narrowed down the margin of error," Zinkovich said, but "now we have additional volume because of that."

The river pollution creates a variety of complications to the ecosystem and poses a threat to people using the water in the days following a discharge.

Health complications

The contaminating sewage creates a variety of health hazards, including the bacteria *Escherichia coli*, better known as *E. coli*.

E. coli 0157:H7, an especially potent strand of the bacteria, typically causes bloody diarrhea and abdominal cramps if consumed by people or accidentally ingested in water while someone is swimming, a Centers for Disease Control and Prevention Web site reported. Further health complications including eventual kidney failure can develop in children under 5 years old and the elderly, the CDC reported.

Government regulations during the "recreational season" from April to October prohibit *E. coli* counts of higher than 125 units per 100 milliliters of water as a geometric mean for five *E. coli* samples taken equally over a 30-day period, and single-sample counts of 235 units or higher during the same time frame.

The vast majority of Wabash River samples taken at several different Vigo County locations for the Long-Term Control Plan in October and November 2001 measured more than 100 colony forming units; five river sections surveyed on Oct. 15 registered *E. coli* counts of more than 1,000 units.

Of five IDEM samples taken from the Wabash River in Vigo County during June and July 2004, three samples tested above the maximum one-sample limit; one measured at a most probable number of 48 units and the other one measured at a most probable number of 166.4 units.

Water conditions and contaminants impact the amount of *E. coli* in the river, which would result in various counts at different river sections.

Yet Terre Haute's Long-Term Control Plan reported that the single-sample *E. coli* standard "will likely be exceeded with any CSO discharge or with storm water runoff in urban and suburban areas."

Most water sampled along the Wabash River from near the Indiana-Ohio state line to near Lafayette tested as being impaired for *E. coli*, according to an analytical report on the Wabash

River available on IDEM's Web site.

The report indicated about half the water tested at the rest of the IDEM sampling stations spread along the rest of the Wabash River tested was impaired for E. coli.

"... When these [CSO] incidents occur, it's important for people to know there is that short-term exposure issue," IDEM public information officer Amy Hartsock said in a telephone interview last year, "and they need to be informed there could be some ill effects from coming into contact with the water during those rain events."

Despite the health risks, nobody suffered an illness investigated by the Vigo County Health Department in 2006 that could be attributed to contamination in the Wabash River, said Joni Foulkes, the department's director of operations.

Aquatic alterations

Combined sewer overflows create additional complications. Sewage decomposing in streams consumes oxygen in the water, which can result in decreased oxygen levels for fish to breathe, said Todd Royer, assistant professor of environmental science at the Indiana University School of Public and Environmental Affairs.

Surveys of the Wabash River near Terre Haute taken in fall 2001 showed that the dissolved oxygen levels fluctuated. But as with E. coli levels, various factors impact oxygen levels in streams at any given time.

The city's Long-Term Control Plan reported that addressing CSOs "will help reduce the load of oxygen demanding constituents reaching the river."

Other complications can arise from chemicals in the ground that mix with storm water before discharging into a river, said Darrell Leap, a retired Purdue University earth and atmospheric sciences professor.

Combined sewer overflows are "a very serious problem," Leap said in a telephone interview with the Tribune-Star last year, "and a lot of cities just haven't been able to come to grips with it."

It's hard to differentiate between combined sewer overflows' impact since a variety of human behaviors can damage waterways.

"Things like ... habitat degradation and other impacts also affect the same organisms that are affected by the sewer [overflows]," Royer said, "and in general, Indiana has pretty poor water quality in the streams and rivers, particularly in urban areas."

Future repairs

Terre Haute is not alone in dealing with combined sewer overflows. In all, 13 municipalities

including Clinton and Sullivan have combined sewers that discharge contaminants into the Wabash River. More than 100 Indiana communities contain combined sewer systems that government environmental agencies say must be addressed.

Terre Haute's Long-Term Control Plan estimated that the city would pay about \$45 million, which is expected to treat about 85 percent of combined sewage during "wet weather events." The plan will be partially funded through bonds backed by the 2004 sewer rate increases.

City officials submitted the plan to the Indiana Department of Environmental Management nearly five years ago, which IDEM officials are currently reviewing and scheduled to issue a ruling in 2008.

More than 80 communities' plans are currently under review, said IDEM public information officer Barry Sneed.

In the meantime, increases in construction costs and other variables will thrust the cost of the proposals in the plan to "somewhere in the neighborhood" of \$60 and \$70 million, Zinkovich said.

He added that sewer rates inevitably will need to be raised again to help pay for solving the sewer overflows. City communications director Peter Ciancone said that Terre Haute has enough remaining bonding capacity to effectively handle potential cost increases.

The city already has moved forward with some construction projects that address the combined sewer overflows. Several old brick sewers were reinforced with cement, which will help the pipes better maintain sewage as other projects will be constructed.

The current Fourth Street sewer replacement project is listed in the Long-Term Control Plan as a "CSO Related Work Item."

Terre Haute is reviewing the plan, which included changing some simulation data for new testing. Zinkovich said that IDEM and the Environmental Protection Agency have raised expectations for a sewer system's capabilities in the last few years, which is a factor for city officials reviewing the plan.

While the plan may be revised, it's unlikely that the combined sewer overflows will be completely eliminated.

July 8, 2010

City Council votes to up sewer rates

Measure passes by 7-0 count

Arthur Foulkes
The Tribune-Star

TERRE HAUTE — Residential sewer bills are headed up following a vote Thursday night of the Terre Haute City Council.

The council voted 7-0 to increase residential sewer rates by an average of \$5 per month beginning this month and by \$10 per month beginning in January 2012. The higher rates are needed to pay for approximately \$100 million in federally-mandated improvements to the city's wastewater treatment facility.

Terre Haute has not seen an increase in sewer rates, which currently average \$16.54 per month, since 2005, said Mayor Duke Bennett, who urged the council to support the increase. It would have been better if the city had implemented incremental increases annually over the past several years, he said. "We are facing a catchup," Bennett said.

The average Terre Haute residential sewer bill following Thursday night's vote will increase to about \$22 per month. The average bill will reach about \$32 per month beginning in 2012, according to figures supplied by Umbaugh and Associates, an accounting firm hired by the city.

Prior to the meeting, some members of the council discussed the possibility of postponing a vote on the sewer rate increase.

"Tabling this issue is a horrendous idea," said Councilman Rich Dunkin, D-1st. Some people object to the mayor's plan to use a lagoon system near the Wabash River to store combined stormwater and wastewater, but that plan is not a part of the rate increase, he said.

These rate increases passed Thursday will mostly support federally-required improvements at the wastewater treatment plant, Bennett said. Additional smaller increases will also be necessary in upcoming years to deal further with combined stormwater and wastewater, he said.

The City of Terre Haute is required to submit a 20-year plan to state and federal environmental officials in September explaining how it intends to meet new environmental mandates, including reducing combined stormwater and wastewater overflows (known as CSO) into the river. Failure to have an approved plan could result in large EPA-imposed fines, court costs and loss of local control over the city's CSO plan, Bennett said.

Even after the new rate increases, Terre Haute will continue to have one of the lowest sewer rates in the state, Bennett told the council. Presently, average sewer rates are more than \$30 per month in Rosedale and West Terre Haute, he said.

"If you live in Riley, you're paying \$70 a month," Bennett said. "I think it's just part of the process. It's part of living in the city. ... User fees are what pay for these improvements that we're mandated to do. We really just don't have a choice."

All council members present at the meeting supported the rate increase. At-large councilmen Jim Chalos and George Azar were absent.

Also Thursday, the council voted to eliminate automatic membership on the city's Animal

Control Commission for the director of the Terre Haute Humane Society. The council first discussed making this change late last year after Councilman Norm Loudermilk, D-3rd, said he had heard complaints that the Humane Society's animal shelter was often full and could not take additional stray animals picked up by city animal control officers.

Speaking at Thursday night's meeting, Marty Dooley, supervisor of the Terre Haute Police Department's Environmental Protection Division, told the council the Humane Society has a good relationship with animal control officers. However, the shelter has only been taking emergency stray animal cases recently. As a result, animal control officers have had to find local residents willing to take some strays.

"They just don't have room for them," Dooley said.

Bennett told the council the city is working on a plan that will require "hardly any tax dollars at all" that will provide a temporary place for strays. The plan is still in its early stages, he said.

The council voted 5-2 to remove the shelter director from automatic membership on the Animal Control Commission. Councilmen Don Morris, D-at large, and John Mullican, D-6th, voted against the move.

The Animal Control Commission is a five-member advisory body to the city on animal control matters. Three of the positions will now become mayoral appointments and two will remain appointments of the City Council.

Finally, the council approved a rezoning request from Terre Haute Savings Bank for the construction of a new branch at the southeast corner of 25th and Poplar streets. The property is currently a vacant gas station.

Demolition of the gas facility should begin soon and construction of the new bank branch could begin by fall, a Terre Haute Savings Bank official said.

February 4, 2010

Mayor: City budget challenges continue

Bennett gives annual State of the City address

By Arthur E. Foulkes

TERRE HAUTE — Despite having less revenue to work with, Terre Haute Mayor Duke Bennett said the city kept its spending under budget in 2009, but will continue to face big budget challenges in 2010.

In his annual "state of the city" address, Bennett said Thursday the city "came in 3 percent under budget" in the past year. Those savings can be applied to the 2010 budget, but the city still must tighten its belt this year, he said.

“We’re going to have to live with less money,” Bennett told an audience of about 100 in the city courtroom at City Hall. In the past, the city budget always increased about 3 to 5 percent each year. Now – due largely to property tax caps – city revenues are dropping, he said.

“Things are totally different now,” Bennett said.

A first-term Republican mayor elected in 2007, Bennett used most of the annual speech to point to accomplishments from the past year and to look to the near future. City department heads, members of the public and the news media attended the address.

As a consequence of property tax caps, lower local income taxes and potentially lower assessed property values, the city faces significant reductions in revenues over the next year, Bennett said. From 2009 to 2011, Terre Haute’s property tax revenues, which pay for much of the city’s day-to-day operations, will drop an estimated \$6.7 million, he said. Economic Development Income Tax (EDIT) funds will drop about \$1 million over the same period.

“That’s a significant amount of money,” Bennett said, adding that if assessed values also decline, additional cuts to the 2010 city budget will be necessary later this year.

“I’m not trying to be gloom-and-doom,” he said, but everything seems to be happening at once.

The total city budget for 2010, including services paid for from user fees such as sewage bills, was about \$100 million.

Despite the revenue cuts, Bennett said he is close to finding a way to fund a new police station for the city. The police department currently rents a facility on Wabash Avenue. The lease for that building expires at the end of 2011 and Bennett hopes to have a new station ready by then at First and Cherry streets, he said.

The city also is within two years of eliminating odors from the sewage treatment facility on Prairieton Road west of Honey Creek Mall, Bennett said. Rather than spend \$140 million to build a new facility, the city is upgrading the current one by purchasing an enclosed “headworks” unit and by enclosing sludge ponds. Those two steps will eliminate the odor problem in the next couple of years, the mayor said.

Apart from budget constraints, probably the “most important” challenge facing the city in coming years is the combined sewer overflow system, Bennett said. State and federal environmental officials are mandating that the city dramatically reduce the amount of combined rain and raw sewage that flows through the current system directly into the Wabash River. The city is being ordered to spend about \$125 million over the next 20 years to meet the mandated guidelines. The mayor said this means average annual household sewer bills will rise from about \$192 to about \$660 in 20 years.

To deal with the CSO problem, the city likely will use a “multifaceted” approach involving underground storage tanks, storage within sewer lines and lagoons, Bennett said.

Looking ahead to other city projects, the mayor said he is forming a “crow committee” to try to deal with Terre Haute’s annual influx of crows. It is too late to do anything about the crows this year, so the committee will be working for ways to deal with their return next year, he said:

“We can’t shoot them. We can’t poison them. We’ve got to figure out a way to transfer them someplace else.”

The city also is looking to use federal funding to replace Terre Haute’s traffic lights with LED lights, Bennett said. The city has had LED lights on Third Street and Wabash Avenue for the past six years, he said. LED lights, which do not burn as hot as conventional lights, will save Terre Haute about \$270,000 annually in electricity bills, Bennett said.

Among other things, the mayor also said plans are in the works this year to continue restoration efforts on the historic Collett Park pavilion, build affordable housing on the near northeast side, open a new city park at 500 Maple Ave., and clean up the former Tony Petroleum site near the Indiana State University campus.

He also predicted future progress along the Wabash River thanks to efforts of the city, Downtown Terre Haute, ISU and the Wabash River “Riverscape” committee.

Riverscape’s efforts on the west side of the Wabash are a “great example” of what can be done along the river, Bennett said. “Ten years from now, we’ll probably be shocked how much has happened.”

June 20, 2010

Public has chance for input on sewer increases

Arthur Foulkes
The Tribune-Star

TERRE HAUTE — The public will have several chances to comment in the next two weeks on proposed increases in local sewer rates.

Terre Haute’s Sanitary Board of Commissioners will conduct a public meeting at 6 p.m. Thursday in the City Hall courtroom to take comments on the proposed increases, which could double the average local sewer bill by 2012.

A second meeting, at which public comment also will be accepted, is set for 6 p.m. July 1 at City Hall. At the second meeting, the board is expected to vote on a resolution that would recommend the rate increase to the Terre Haute City Council.

It will then be up to the council to accept or reject the proposed rate increases. The council will meet July 1 at 7 p.m. in City Hall and again July 8. Public comment also will be allowed at those meetings.

The July 8 City Council meeting would be the soonest the council could vote to pass the new sewer rates. The most recent sewer rate increase was passed by the council in 2004 by a 5-3 vote. At that time, two amendments to the rate increase resolution were proposed, but both were defeated.

According to a plan put forward by the Indianapolis accounting firm of Umbaugh and Associates, Terre Haute would impose a 35 percent hike in sewer rates this summer, followed by another increase in January 2012. Combined, the increases would nearly double the current average household sewer bill, according to figures provided by Umbaugh.

The last time Terre Haute experienced a sewer rate increase, rates also doubled. However, Terre Haute still has one of the lowest average sewer rates in the state, according to Umbaugh.

At present, the average household monthly sewer bill in Terre Haute is \$16.54 compared with \$25.01 in Lafayette, \$27.23 in Evansville, \$33 in West Terre Haute and \$36.20 in Columbus. Even after the proposed increases this summer, the Terre Haute rate still would rank among the lowest in the state, according to Umbaugh.

Terre Haute is one of the few cities in Indiana that also uses property taxes to cover sanitary sewer expenses, said Mayor Duke Bennett. Currently, property tax revenues cover \$8.5 million in sanitary sewer costs, mostly covering bonds previously issued for sewer infrastructure improvements, said city engineer Chuck Ennis.

The proposed rate increase is needed to meet a federal mandate requiring improvements to the city's wastewater treatment plant south of town, Ennis said. Those improvements, costing approximately \$100 million, will enable the plant to remove nutrients from the wastewater treatment stream. The plant's current operating permit expires in 2013 and the new permit will require removal of those nutrients, Ennis said.

At the same time the plant is updated, Ennis noted, it will be enlarged. The larger plant capacity will help the city meet another federal mandate regarding problems with the CSO, or combined wastewater and stormwater overflow, Ennis said.

"As long as we're making the improvements to the plant, we might as well bump them up a little bit to handle more stormwater as well," Ennis said. The plant currently can handle 18 million gallons of waste and stormwater each day. The improvements will increase that figure to as much as 24 million gallons per day, he said.

On an average day, the wastewater treatment plant handles about 11 million gallons of wastewater. During a storm, the city produces about 50 million gallons of mostly stormwater, Ennis noted.

February 15, 2010

[Ideas in the pipeline for managing combined sewer overflow](#)

By Arthur Foulkes

In a lengthy “citizens advisory committee” meeting Monday night, community leaders tossed around ideas for dealing with hundreds of millions of gallons of Terre Haute’s combined rainwater and sewage.

Federal clean water laws mandate that the city reduce the volume of combined rainwater and sewage that reaches the Wabash River.

When it’s not raining, sewage flows to the city’s wastewater treatment plant on the south side of town. However, during a “significant” rain, the wastewater treatment system cannot handle the extra volume. As a result, combined rainwater and sewage flow directly into the Wabash.

Now, because of federal requirements, Terre Haute must eliminate most of those “overflow events.”

“We’re looking at everything we can,” said Michael Cline with the engineering firm of Hannum, Wagle and Cline, which has the city’s contract to study the “combined sewer overflow” (CSO) problem.

Representatives of the Wabash River Development and Beautification Inc., also known as “Riverscape,” were present at Monday night’s meeting in the Terre Haute Chamber of Commerce board room. They asked Cline and city officials at the meeting about possible alternatives to a proposed wastewater “lagoon” south of downtown on the east bank of the river.

“Is anyone going to want to build condos or offices” near the proposed wastewater lagoon?, asked Charlie Williams of Williams Randall Marketing, who serves on the Riverscape committee. The lagoon is on property that the city is in the process of purchasing from International Paper.

Cline presented three possible solutions to Terre Haute’s CSO problem, ranging in cost from about \$95 million over 20 years to \$170 million over 20 years. The two least-expensive options included using the lagoon.

Last year, about 420 million gallons of combined sewage and rainwater flowed into the Wabash River after significant rains, Cline said at the meeting, which lasted more than two-and-a-half hours.

The least-expensive option, costing about \$95 million, may not meet federal requirements, Cline noted. The two more-expensive options would involve building a tunnel 15,000 feet in length under First Street. The tunnel would allow CSO to travel to the wastewater treatment plant. It would also be large enough to store “overflow” after a big rain.

One plan, costing about \$145 million, calls for making the tunnel 13 feet in diameter and using the lagoon on the International Paper property. The other plan, costing about \$170 million, calls for a tunnel 20 feet in diameter but without use of the lagoon.

In addition to the millions of dollars the city will need to spend over 20 years to upgrade the CSO system, an additional \$130 million is expected to be spent upgrading the existing wastewater treatment plant, city officials said at the meeting.

The next meeting of the citizens advisory committee on the CSO problem is planned for sometime in May, Cline said. At that time, more data will be available. It is still unclear what impact each proposed solution would have on water quality, he noted. In addition, it is also still unclear what these plans will cost sewage rate payers, he said.

City officials must have a final CSO plan ready for state environmental officials in September.
